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International Formula One Monthly

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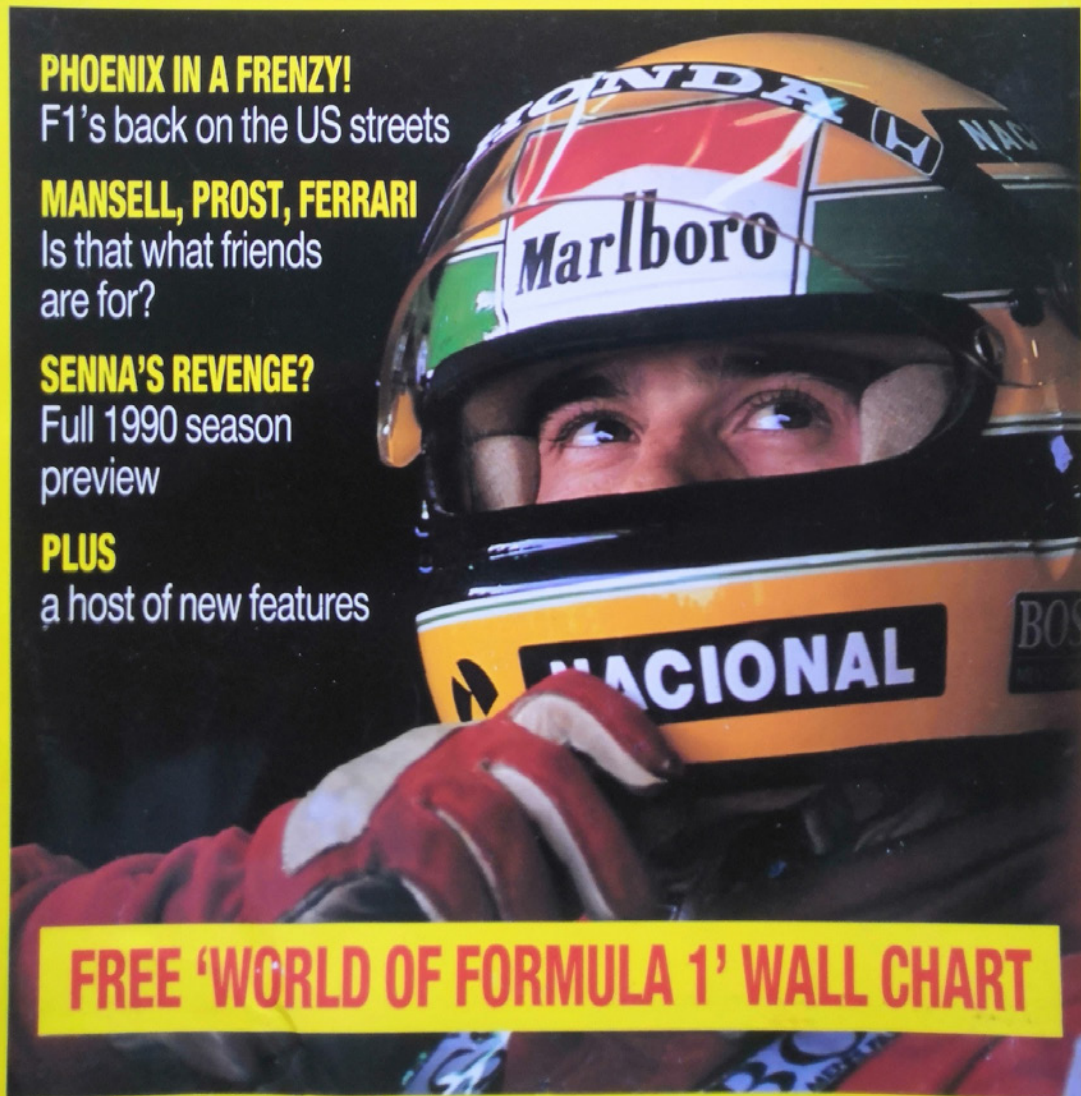
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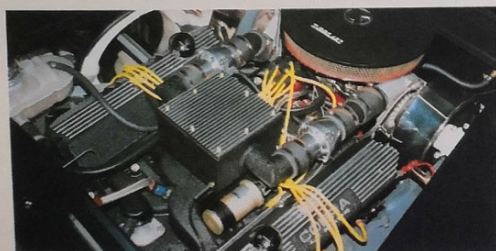


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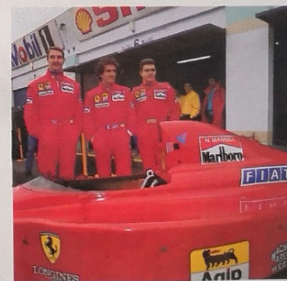
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PRIX EDITIONS

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STOP PRESS!

McLaren had until 17:00 Feb. 1 to pay \$100,000 fine levied on Senna in November or face suspension... Zakspeed have pulled out of Formula One for a year — continuing problems with Yamaha engine and sponsorship... Silverstone clinches new 5-year deal for British Grand Prix on expiry of current contract in 1991: drastic revisions to circuit planned for 1991 race.

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POLE POSITION



Formula One is now firmly middle-aged. A World Championship founded in 1950 has completed four eventful decades, a forty-year span that has seen something that started out as a six-race (excluding Indianapolis), five-team, Europe-based amateur extravaganza transformed into a global industry encompassing 20 teams, sixteen events and dollars in quantities that only Mr Ecclestone could ever have imagined.

Yes, as one of our pictures shows, Money with a capital M is now firmly at the centre of Grand Prix racing. No bad thing, perhaps: money makes the world and the cars go round, after all. But it takes more than money to make people come to the cabaret, and it is a small but sobering thought that actual Grand Prix attendances were down in 1989. A downturn compensated, no doubt, by worldwide television audiences whose numbers are the only digits to come close to the annual Formula One spend...

But in this first year of a new Grand Prix decade, the one that takes the sport (sport??) towards a new millennium, the time has come for some form of re-birth. Fat and forty may be one way to approach life, but fit and forward-looking is another... Last year was one of considerable

unpleasantness in Formula One, on and off the track, a year whose bitter legacy of litigation overshadowed the Grand Prix scene as we went to press, with the possibility that the finest racing team in the world might actually be refused the licence to go racing again.

As in all other areas of sport, the cult of the personality has taken over Formula One. Like the silver screen of Hollywood's heyday, the small screen in the corner of everyone's living room has magnified sportsmen in the public image - and made their media-mad acolytes key players in a 16-act drama that has become depressingly predictable. "Me first", in other words, has supplanted the perfectly legitimate desire to "Be first".

Now no-one in his right mind would deny top sportsmen the right to earn as much as they can from relatively brief careers; and no-one in his right mind would see himself in the average Grand Prix driver's shoes, let alone those of the leaders of this particular pack. Is it not possible, though, to rekindle memories of the World Championship's start and let amateur attitudes - those displayed by people who do what they do for the love of doing it - jostle for elbow-room alongside today's professional priorities?

Elsewhere, after all, continuity is the norm in Formula One: there is this year, as there was in 1950, a Ferrari team at the heart of the matter; there is this year, as there was 30 years ago, the name of McLaren at the centre of things; there is this year, as there was two decades ago, a Brabham back in a Grand Prix cockpit; and right in the thick of the action this year, as they were in 1980, will still be the likes of Piquet, Patrese and Prost.

In fact there are relatively few outright newcomers to the Grand Prix scene in Phoenix in 1990, Gary Brabham being the only one not to have participated in some way in a Grand Prix weekend before. The first race of 1989 was a bit of a false dawn, as the old McLaren-dominated order was quickly restored: young Brabham starts the new decade in a team called Life. The last race of this year, in Adelaide, will be the 500th Grand Prix in World Championship history; how about making 1990 - for everyone devoted to Formula One - the year of celebration when life began at 40?

Stuart Sykes

Left: Money in the middle...
Below: Rio '89: false dawn



(Alamy/Photofest)

KEEPING TRACK



Above: Will Senna be able to fight for the number one spot again?
Below: Gary Brabham brings a great name to the Grand Prix scene

This one will run and run... and so the Senna story has, ever since the threat of six months' suspension was followed by the threatened revoking of the former World Champion's superlicence, which would rule him out of the 1990 title race. Senna was deemed to have accused FISA President Jean-Marie Balestre of manipulating the outcome of the 1989 Championship, won by Alain Prost. Senna said in a Brazilian interview: "It is clear that political and economic pressure groups manipulated behind the scenes to make Prost this year's champion. Out of patriotism, friendship or other reasons I prefer not to mention, Jean-Marie Balestre wanted to see Prost as champion." Not one to take such things lying down, JMB met Senna in December, "tried to make peace", in his own words, "but had to deal with an individual who was full of contempt and arrogance." Come late January, and JMB is saying on French tv that he had not demanded Senna's apology, and is fulsome over Senna in a Monte Carlo press conference. Senna, he said, "had been used as an instrument by the media", adding "I appreciate Senna's present attitude. Discretion is more effective than explosion."

Senna, relaxing in Brazil, said he was definitely not going Indycar racing as rumoured and was confident about Formula One with McLaren-Honda: his only problem at that stage was a damaged eardrum sustained while water-skiing for the benefit of Brazilian tv.

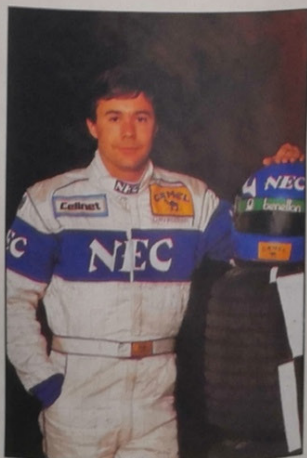
Another big gun blazing away at Senna is three-time World Champion Jackie Stewart. Speaking during a 'nostalgia day' at Donington which saw him drive his 1971-72 Tyrrell-Ford again, JYS opined: "I would almost dare to say that if you examined Grand Prix records, since 1950, of the top six drivers - Fangio, Moss, Clark, Stewart, Lauda and Prost - and the total number of incidents they have been involved in with other drivers, then that figure might not even match what Ayrton has done on his own. That being the case, he's not doing it right. There's a chink in his armour somewhere."

Remember - who could forget! - the debacle of the 1989 Australian Grand Prix start? FISA's World Motor Sport Council has reacted with a new start procedure. It states that "if the volume of water on the track is such

that it cannot be negotiated safely even on wet tyres, the Event Director may delay the start by showing the 'START DELAYED' board simultaneously with the '10-MINUTE' board with a red background." This procedure can be repeated several times until conditions improve. FISA is also requesting brighter warning lights at the rear of Grand Prix cars.

Other notes from FISA: new regulations will make car numbers easier to read for spectators and marshalls; the pole position winner will attend a Saturday press conference or face a \$10,000 fine; drivers who fail to attend drivers' briefing on the morning of a race will also be fined \$10,000 and forced to start from the back of the grid.

While Ayrton Senna wonders about his superlicence, FISA has granted them to Scot Allan McNish, Gary Brabham of Australia, Italian Antonio Tamburini and Brazil's Christian Fittipaldi. The latter is a nephew of Emerson (see Emmo feature elsewhere in this issue) and at 18 the youngest man ever to earn his superlicence.



(Alamy/Pascal Rodiere)

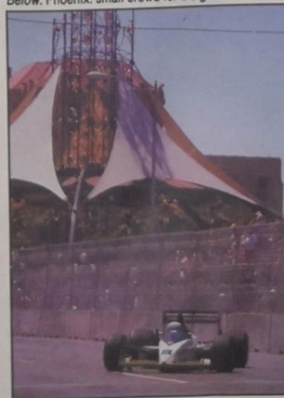
Designer defection: Alain Prost has been followed to Ferrari by his former McLaren race engineer Steve Nichols, who joined Ron Dennis's team in 1981 and was largely responsible for the McLaren MP4/4 that won 15 out of 16 1988 Grands Prix. As Gordon Murray is now so heavily involved with the McLaren road car project, the only member of the brilliant design trio of Murray-Nichols-Oatley is Neil Oatley himself. Nichols was critical of former McLaren designer John Barnard, lately of Ferrari and now with Benetton, saying "John atrophied the technical and human potential of the men of Maranello." Pirelli, meanwhile, are trying to court Ferrari for future tyre supplies.



Above: Nichols (left) Murray: no longer McLaren's main men

Other personnel transfers: former AGS and Coloni designer Christian Vanderpleyn has joined Dallara, while former Ferrari chief mechanic John Viladelprat is now team manager for a Tyrrell team entering 1990 with more stability and confidence than for some time.

Below: Phoenix: small crowd for a big event.



(Alamy/Pascal Rodiere)

On the race-track front, Goodyear's annual study of race attendances reveals a drop of over 200,000 to 2,336,500 at the 16 Grands Prix of 1989. Major contributory factors were poor weather at Spa, Montreal and Adelaide, and the disappointing crowds for the inaugural Phoenix Grand Prix. Latest developments indicate that Barcelona in 1992 will play host not only to the Olympic Games but also to the Spanish Grand Prix, Jerez's having been one of the lowest crowd figures consistently since the race went there in 1986. The French Grand Prix is to switch from Le Castellet in the South to Magny-Cours, much closer to Paris, in 1991 and for a five-year period.

Outside the World Championship itself, the major re-development done recently at Britain's Donington Park - a Grand Prix circuit back in the Thirties - has been rewarded by a full-scale non-Championship Formula One race on the Midland track this year. Recognised as a FOCA meeting, the Donington 200 Gold Cup race will be run on Easter Monday, April 16, with two days of qualifying on the Saturday and Sunday. As of late January McLaren were saying they would not take part, otherwise all the leading teams are expected to send at least one car each, including Nigel Mansell's Ferrari.

Below: Will things look-up for Alboreto at Arrows?



(Alamy/Pascal Rodiere)

Jackie Oliver and Alan Rees may have sold Arrows to Japan's Footwork Corporation, but the two founders of the team will continue to run the racing operation in 1990. The deal, reputed to have revolved around a \$10 million figure, sees Tom Wickham and Footwork's Yoshihiko Nagata also integrated into the management structure. Watch for a major feature on the Footwork 'sponsorship' in a forthcoming issue of Prix Editions International.

Porsche have admitted they have a new V12 engine ready to race in 1991 but have not yet named the lucky team. It is expected to be a revamped Brabham, with Onyx founders Mike Earle and Joe Chamberlain alongside Herbie Blash. Martin Brundle has quit Brabham because of 'contractual problems', just one of the ill-defined areas affecting the Chessington team in the continuing wrangle over ownership, all of which is sub judice as we go to press. The move leaves the popular Brit, World Sportscar Champion in 1988, without a Grand Prix drive.

Other driver moves (see also pictorial spread):

Bertrand Gachot, dropped after public criticism of Onyx last year, has been signed by Coloni, now renamed Subaru Coloni Racing Team and due to use the Subaru flat-12 engine designed by Carlo Chitti, with a V12 expected in the course of the year; out of Coloni and into EuroBrun goes Brazilian Roberto Moreno; Pierluigi Martini's teammate at Minardi, replacing Luis Perez Sala, will be Italian Paolo Barilla; Johnny Herbert, who made such a brilliant start to 1989 with fourth place in Rio, has been dropped as a test driver by Benetton but snapped up in the same capacity by Lotus; Australia's Gary Brabham has become the first of Sir Jack's three championship-winning sons to make it into Formula One, joining the newly-formed Life Racing Team in Italy. Bernd Schneider is the sole 1990 nominee for Zakspeed, severely threatened by lack of sponsorship.



(Alamy/Pascal Rodiere)

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THE
MAURICE HAMILTON
COLUMN



ON THE OTHER HAND

Sick and tired of reading about the Eighties? Know how you feel. The New Year can be a pretty thin time for publishers and most of them seemed determined to fill space by hashing and dishing the past decade from every angle. By January 6, I thought I had seen all there was to see. Then I came across a periodical which had, shall we say, a more relaxed approach.

I was on my way to the Racing Car show but forgot that the newsagent at Dorking station is not open on a Saturday afternoon. Bereft of reading material, I followed the basic training which seems to be instilled in every British Rail employee; I scoured the train for abandoned newspapers and magazines. The guard was either swift off the mark and an avid reader, or Saturday is a poor day for discarded literature. There was nothing, save for a publication called, if I remember rightly, "Midweek". And in it was, yes, a Review of the Eighties.

"Here we go again," I thought. "The familiar diet of President Gorbachev, Princess Di and Phil Collins." But no. This was refreshingly different. The author's favourite moment of the decade was when someone telephoned Saturday Superstore and went on air to tell Matt Bianco he was a wanker. Just like that! Even the supercilious Mike Read was momentarily wrong-footed. Wonderful.

That set me thinking. This is what Formula One needs. A regular Saturday morning phone-in where the good and the great of Grand Prix racing speak to their public – in public.

Read: "Call for you on line 3, Ron." Ron: "Sorry, I'm not yet in a positive position to answer anything positively." Read: "Jolly good Ron. Okay, the next call is for Ayrton on line 1." Caller: "Yes, thank you. Hello Ayrton..... Ayrton?" Read: "Sorry caller, he's not actually here yet. But we've been told he will be in in about five minutes. Can you call back? Good, good. Now Alain, this one's for you. Line 2."

Caller: "Hello Alain."

Alain: "ello."

Caller: "Why didn't you do a proper job in Suzuka and shove that Brazilian into the barrier while you were at it? Have you lost your bottle?"

Alain: "I don't understand. Bottle? What is this? I was never given one. Maybe this is anuzzer example of the bad treatment I 'ad from 'onda. I don't know. I must complain about it."

Caller: "But you are always complaining."

Prost: "Yes, I know. You must understand this is Formula One and it's allowed. Everyone does it. I'm not one to complain very often but I would like to take this opportunity to..."

Read: "Ha ha ha, jolly good Alain. Hope that answered your question, caller. Nigel, this one's for you. It's from Stirling and..."

Nigel: "Stir! Nice to talk to you. Viewers, this is one of motor racing's true greats and he's never won a World Championship. Neither have I. But I'm about to put that right in 1990."

Prost: "No Nigel, I don't sink so."

Nigel: "Listen you froggie git, I... just a joke viewers, we're great friends and I want to take this

opportunity to say how wonderful..." Read: "No, no, no, Nigel. The call is not from Stirling Moss, it's from Angus and he's calling collect. Quick as you can Angus."

Angus: "Nigel, what's your favourite colour?"

Read: "Brilliant question! Nigel..."

Nigel: "I don't care what Pro... Alain says, I would like to take this opportunity to say thank you to everyone at Ferrari and the BBC for the fantastic job they did in bringing me here. The way that they stopped the traffic on Westway so that I could land my jet was simply fantastic. I noticed Alain came by tube but we won't talk about that. Anyway, I'd like to have it put on record that we are the best of friends and if he ever needs help he knows he can call me at any time and..."

"Hello? Caller from Stirling. British Telecom operator here. Sorry, we seem to have connected you to the Samaritans. We'll try the BBC again for you."



"I want to take the opportunity..." (Dominique Lavey)

Read: "Brilliant Nigel. I didn't know you could do impersonations of Telecom people as well as drive."

Alain: "He can't. Drive I mean."

Nigel: "Listen, froggie features..."

Read: "Jolly good chaps. Ah, we have Angus back on the line. Did you get all that Angus?"

Angus: "What did he say his favourite colour was?"

Ron: "He said it was black!"

Read: "Sorry Ron, I didn't get that."

Ron: "McLaren joke... Portugal... Mansell disqualified... Black Flag..."

Alain: "You mean like the seven Ayrton missed in Spain."

Ron: "I'm sorry you are taking this attitude Alain. We're only having a bit of fun."

Alain: "Ah, like we had on the rostrum at Monza. Yes, that was very funny."

Nigel: "Go on Ron, duff him up..."

Read: "Aren't these Grand Prix stars a laugh folks? Now Alain, we have Stephanie on line 4 for you."

Stephanie: "A bit of a personal one, Alain. Is it true that having a big



Above Left: Earphones at the ready... Prost awaits the call!
Above: Gerhard doesn't find this stuff amusing any more...
Far Left: Hi folks, I'm just having my personal assets evaluated.
Left: No wonder Ron looks on in distaste...



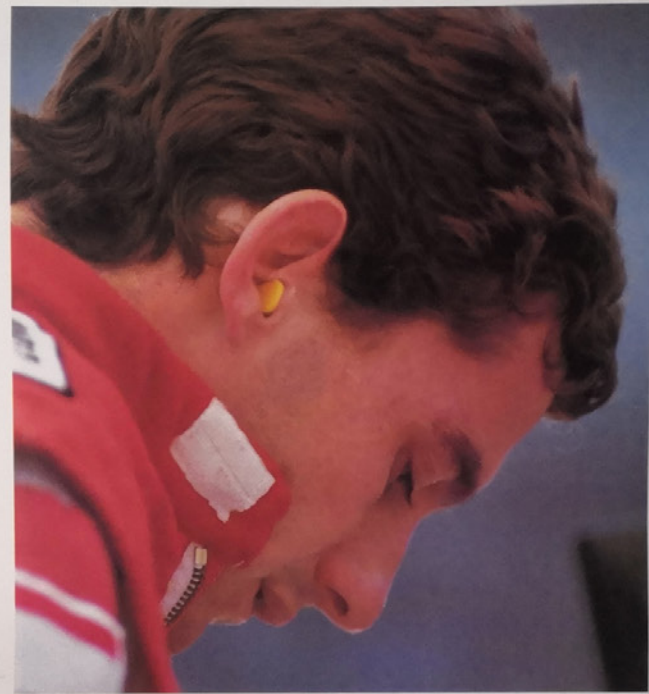
nose means that you have a big pe...pe...personal asset somewhere else?"
Read: "Gosh!"
Alain: "I'm sorry, I don't understand. My nose was never any bigger than Ayrton's all last season. Maybe you could see something from the outside of the car which I could not see. If he had bigger wings and more downforce than me, I would like to know about this but, as I've said before, it is Ayrton that has the personal problem. Maybe we could meet in the carpark afterwards and you will see that I have no problems with my personal asset and..."
Read: "Yes, thank you Stephanie. Sorry line 6, Ayrton is still not here. Any minute now. He's debriefing in the make-up room. In the meantime Ron, could you speak to Elmer, calling from Harvard on line 3?"

Elmer: "Ron. Good to talk to you."
Ron: "Likewise. What can I do for you?"
Elmer: "Ron, my question is this. If you take, at this point in time, the performance of your team, relative to the organisation which comes under the jurisdictional managerial domain of your good self and others with the fundamental rule-making

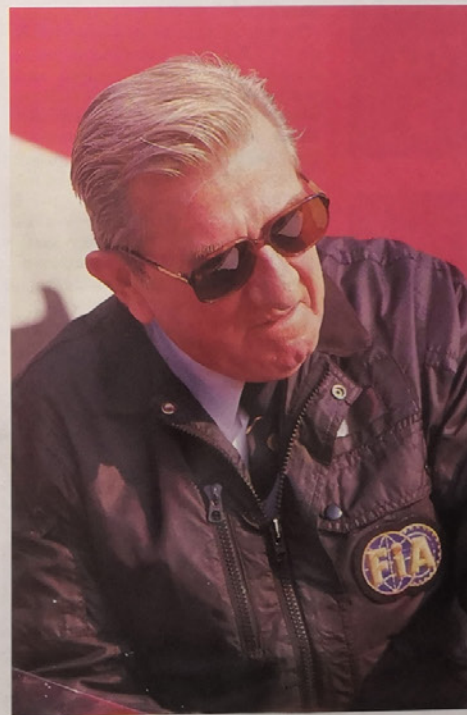
executive control visa-vie matters such as the placing 'No Smoking' signs in the washrooms, if you take the overall averages within the corporate positioning of the commercial partnership in the market place, what would you say, at this point of time, without compromising your position, was your favourite piece of music?"
Ron: "Good question. And very well put, if I may say so. Well, if I was from FISA, I would probably say that I liked 'Living in the Past'."
Elmer: "Pardon me?"
Ron: "It's a joke. We like to have fun at McLaren."
Elmer: "Joke! Right! Very good Ron."
Ron: "No. My choice would be 'If I Ruled the World'."
Elmer: "... that's another of your jokes, right?"
Ron: "Actually, no."
Read: "Ha ha ha, wonderful stuff. Nigel, what's your favourite hit?"
Nigel: "When I had Senna off in Portugal! That was a smash hit alright!"
Read: "Wonderful stuff! Now then Ron, we've had a call complaining about your reference to FISA. This call is from France. He wishes to remain anonymous but says he's a member of the World Motor Sport Council, whatever that is."

Ron: "Good morning."
Caller: "It isn't morning."
Ron: "Yes it is."
Caller: "Impossible. Can't be. We haven't been told it's the morning yet by our President."
Ron: "I see. Well, why don't you ring him up and ask?"
Caller: "I would not dare to intrude. He's a very busy man. Always flying round the world finding work for us."
Ron: "Yes, I know all about that."
Caller: "No you don't. We have been told you know nothing."
Ron: "I see. Anyway, what's your question?"
Caller: "I haven't been told yet what my question is."
Ron: "Well, why did you ring?"
Caller: "I didn't ring."
Ron: "Yes you did."
Caller: "No. I did not ring. Anyway, I have not got a 'phone."
Ron: "What's that in your hand then?"
Caller: "Mon Dieu! You can see me! I must inform the president immediately. Good morning."
Ron: "But you said it wasn't the morning."
Caller: "I did not. Anyway, I am from FISA and I can change anything at any time. Good afternoon."
Nigel: "Typical bloody frog."

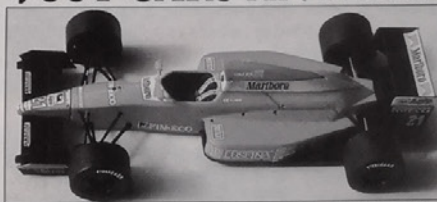
Alain: "Why do you talk like this Nigel? I do not understand."
Ron: "Neither do we. He's from Birmingham! Geddit?"
Read: "Jolly good Ron. What fun! Ah, here's Ayrton. Alain, get up and let Ayrton sit down. Oh, you are standing up. You're going! I see. Anyway, Ayrton, you are just in time for a regular caller to this show. He's from Essex. Line 2."
Caller: "Allo Ayrton. Who's your favourite pop star then?"
Ayrton: "Very difficult to say. But I think Matt Bianco."
Read: "Arrrggh! Yes, well, that's all we have time for this week folks. Goodbye."



Right: I'm really not plugged into this kind of thing...
Below: With shades on it doesn't matter if it's morning or night...



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THIS MONTH'S NON QUOTE

"BRITISH GP AT SILVERSTONE CANCELLED BECAUSE FISA RULE
"HANGER STRAIGHT MORE THAN 3FT LONG!"

BLACK FLAG FOR BALESTRE?

1989 was a bad year for McLaren. They only won 10 of the season's 16 Grands Prix, they lost their coveted racing numbers (1 & 2) with the departure of World Champion Alain Prost to Ferrari, and they faced a winter of discontent in the French civil courts in defence of their star driver, Ayrton Senna.

But not even Prost could have anticipated the manner in which the FISA President Jean-Marie Balestre steam-rolled the bemused race stewards into disqualifying Senna for a highly debatable infraction — and subsequently heaped a totally inappropriate fine and suspended ban on him because McLaren International had the temerity to appeal against this decision, and to mount a well-orchestrated defence. This saga could well go on all winter, and could generate even more publicity for Grand Prix racing in the courts than the very considerable amounts it has recently received on (and on the edge of) the track.

In between times McLaren may have cause to ponder whether Gerhard Berger was the right man to replace Prost — not so much because of his driving ability, of which there is no doubt, but because of allegations by Berger in the Italian press regarding the way he was discriminated against during his last few races for Ferrari. Berger's comments bore a marked similarity to some of Prost's much publicised criticism of his treatment by McLaren and Honda (particularly Honda), most notably after a race which he won!

Compared with Prost, with whom Ron Dennis once had an extremely good relationship, is Berger the analytical, reliable type of driver who will always be around at the end of the race, whatever happens to Senna? Or will he go out and race Senna so hard that both of them fail to finish? Was there no way that Senna and Prost could have continued together? Or should Ron have settled for running a "rabbit" in his second car, as so many teams (notably Lotus and Brabham, and even McLaren International!) have done in the past?

I have a feeling that all these fears will prove groundless, that Senna and Berger will get on well together — or at least as well as is necessary to work together — and that by the end of 1990 McLaren will not only have regained race numbers 1 and 2 but will have been instrumental in bringing about some long-needed changes at FISA and the FIA. In which case all the fighting and feuding will have been worthwhile. ■

DAVID PHIPPS



TALKING POINTS

SENNA ON POLE

Ayrton Senna is the fastest person in the history of Formula One. By the end of the 1989 season, Senna's sixth year in Grand Prix competition, he had won 42 poles. In the record books he is well clear of the other great names: Jim Clark took 33 poles, Juan Manuel Fangio 28, Niki Lauda and Nelson Piquet 24 each, while Alain Prost has 20.

Each year since 1985 Senna has won more poles than any other driver, and in the past two years alone he has started in the number one slot 26 times. Along with the pole he usually sets a new qualifying lap record. How is it done? "It's a combination of many things,"

Senna says. "Good work between the engineers, driver and mechanics, preparation on setting-up the car, the right time to be out, the right choice of tyres, and a clean circuit." "The objective is to concentrate as deep as I can. I somehow can get to a level where... I am ahead of the next corner. I am a split second ahead: halfway through a corner, exiting a corner, just before braking, just before changing a gear, just before putting on the power."

A lot of tension goes through the body. It's like electricity in your body. Every single movement is instant and has to be close to a hundred percent precision.

"Sometimes you don't even look at the rev counter when you change a gear, but know only by your feeling, your ear, that you should be on the right revs. Because if you are going through a high speed corner, and if you look at your revs for a split second, you will not be as committed to your driving as you should."

"It's not easy to explain. Obviously I have been able to do it many times. And I try to do the same in race conditions, but in race conditions you can't keep that level due to mental and physical stress. You have to be content to come down a little bit."

"On top of that is the confidence that I have that I can do it, push myself, go a little bit more and exploit a little bit more of those characteristics that I am learning about myself."

Is a qualifying lap like slow motion?

"Yeees," Senna said. He paused for a long time, thinking. "It's — I don't know how to explain — it's a high sensitivity between my body and mind. And the combination of the two gives the performance."

Has he ever done a perfect lap?

"No," Senna says. "No, because if you are able to recall your lap after you do it, there is room for improvement. It doesn't matter whether it's one tenth, or a hundred, or a few tenths: you always find room for it."

"Ninety nine percent of times you go faster on your second set of tyres than on your first, mainly because you use that information. It doesn't matter if the first one was already very fast. If you use the information properly, and apply all the things I described before, you have a ninety-nine percent chance that you will go faster than before." And faster than any other driver in history. ■

DAN KNUTSON

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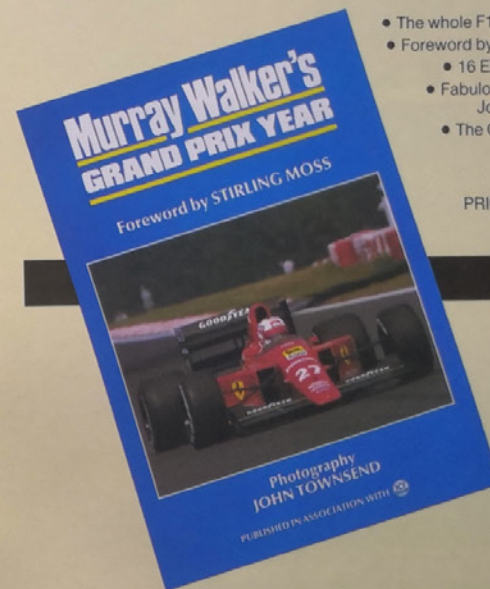
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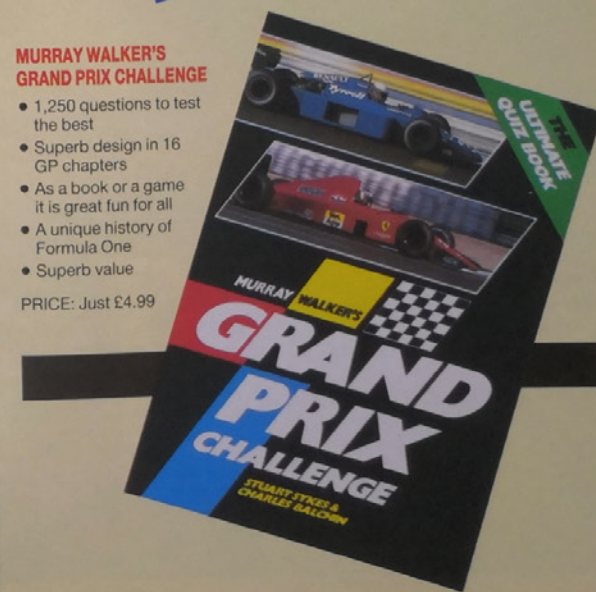
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MAJOR MOVES

TRANSFER MOVES

DRIVER	FROM	TO
Michele Alboreto	Larrousse	Arrows
Philippe Alliot	Larrousse	Ligier
Paolo Barilla	Joins Minardi permanently after debut with them at Japanese Grand Prix 1989	
Gerhard Berger	Ferrari	McLaren
Eric Bernard	Joins Larrousse permanently after debut with them at French Grand Prix 1989	
Alex Caffi	Dallara	Arrows
Martin Donnelly	F3000 and one race with Arrows at French Grand Prix in 1989	Lotus
Bertrand Gachot	Onyx	Coloni
Olivier Grouillard	Ligier	Osella
Nicola Larini	Osella	Ligier
Roberto Moreno	Coloni	EuroBrun
Satoru Nakajima	Lotus	Tyrrell
Nelson Piquet	Lotus	Benetton
Emanuele Pirro	Benetton	Dallara
Alain Prost	McLaren	Ferrari
Aguri Suzuki	Zakspeed	Larrousse
Derek Warwick	Arrows	Lotus



Alain Prost



Martin Donnelly

Gerhard Berger



Michele Alboreto



Derek Warwick



Satoru Nakajima



Eric Bernard, Aguri Suzuki



Nicola Larini, Guy Ligier, Philippe Alliot



Nelson Piquet

1990

FORMULA ONE PREVIEW

by David Tremayne

Can Ferrari or Renault beat Honda? Will Ayrton Senna even race, never mind make mincemeat of his new team mate Gerhard Berger? Will the arrival of Alain Prost strengthen Ferrari's challenge, and/or weaken Nigel Mansell's cosy relationship with the Prancing Horse? There is something delicious about the start of a new season, when everything has come out freshly remoulded from the winter melting pot, and anything seems possible. Right now, it is ALMOST possible to believe Coloni will qualify with the Subaru flat-12 power unit; only in a few months' time will one have slipped back into the cynical, told-you-so mode. But will it all be different from 1989? The initial signs, sadly, are that it won't be on some fronts. Already, the controversy of the final months of '89 has been thoroughly rekindled

with another Senna Affair. Indeed, with its ongoing legal battle against FISA over the Japanese Grand Prix and its immediate aftermath, and now the business of the refusal to grant the Brazilian a Superlicence, there are those who wonder if McLaren will ever have time to update its MP4/5s to B specification... Almost certainly the political nonsense will be cleared up to everybody's satisfaction, but beneath the ruffled exterior Honda Marlboro McLaren may well be a different animal in 1990. First, of course, comes the signing of Berger. In Prost Senna had a team mate who was generally prepared to accept second fiddle status in qualifying. But Berger is not like that, and Ron Dennis can look forward to having to control two chargers at every race. Then there are the emotional problems Senna has had to endure in his battle with FISA, which reached

screaming proportions at the Place de la Concorde last December. And on top of that is the defection of his race engineer Steve Nichols, to Ferrari and to... Prost! Insiders at McLaren say Ayrton is taking that very hard indeed. For all that, however, McLaren must again start favourite, since Honda has continued development of its RA109E V10 throughout the winter, and Neil Oatley has polished some of the (few) rough edges off his chassis design. When they tried one another's cars after their team swaps, Prost and Berger made interesting comments. The former was pleasantly surprised with the Ferrari and voiced the opinion that he could win his fourth title in 1990, although in private he allowed that he wouldn't unless there was a more powerful engine to go with John Barnard's fine-handling F1/89 concept. Berger, however,

was surprised that the Honda wasn't hugely superior to the Ferrari in power terms.

Torque is the real secret, and despite its bottom-end pick-up problem, the Honda was the better in 1989. Ferrari, however, has a brand new version of its V12, and will have a 641 update of Barnard's chassis even though the Englishman has departed for Benetton. Former Williams designer Enrique Scalabroni will have charge of the design department, while Nichols will supervise race engineering. It makes a strong overall package, aided even further by Prost's input. Already he has advised on new methods of debriefing and has impressed engineers with his unique method of driving the 640 in testing. Partnered with Mansell, he creates Ferrari's strongest championship threat for many seasons.

Right now, Frank Williams is feeling quietly bullish about 1990, likening Williams' state of preparation to the start of the 1987 season. The FW13s, introduced in Portugal last year, go forward into the new year in 13B guise, with the latest version of Renault's V10, the RS2. The latter dumps belts for gears for the cam drive, is lighter and more compact, and promises greater power than the final evolution of the RS1, which increased its rev range by 1000rpm over the course of 1989, and was good enough to win in both Canada and Adelaide.

Labatt's brings further cash to the operation, and Thierry Boutsen and Riccardo Patrese proved last year that they can run at the front given a chance. Additionally, Williams has a heavily revised reactive ride suspension set-up under fresh evaluation, although after the dramas of 1988 it is in no rush to race it before it is thoroughly proven.

The dark horse of the top four teams has to be Benetton, which went through catharsis in 1989 with the departure of Peter Collins, the resting of Johnny Herbert, the signing for 1990 of Nelson Piquet and... the acquisition of John Barnard to set up a complete new technical facility.

The latter task will occupy Barnard initially, along with the design of the 1991 car, but he will make input into the entire design programme for 1990 too, which revolves around a harmonised version of Rory Byrne's Japanese Grand Prix winning B189.

Piquet was a controversial if under-standable signing, and the indica-



Above: Facing up to the new season: Alliot back with Ligier in 1990

Below: Alliot's former team Larrousse is another Formula One outfit with a heavy Japanese input.





Above: The world champion is already smoothing things out at Ferrari...
Insert: ...and making himself at home

tions from testing are that the Brazilian might rekindle his old flame. He feels good about Benetton's active ride suspension system (he was always enthusiastic about the Williams system, too) and raved about Ford's development V8 when he tried it at Estoril last December.

The team now has to find direction, which it should with Barnard calling the shots. If it does so soon enough, and avoids the awful delays and setbacks which created the majority of its 1989 problems in the first place, it could spring surprises. So, perhaps, could Lotus, which desperately aspires to be the other top team. Currently there is just a Top Four, but Tony Rudd and Rupert Manwaring hope that the Chrysler Lamborghini V12 will pull them into the upper echelon. Certainly, Prix Editions columnist Derek Warwick shares that view, and as ever the Briton exudes nothing but enthusiasm for his new role.

In Martin Donnelly he has an ideal team-mate; quick but quiet enough to fit in without making unnecessary waves. Between the two of them they should score points regularly provided that the winter has been put to good use by Lamborghini to iron out minor reliability problems that plagued the Larrousse Lola team in 1989. The Italian manufacturer has learned a lot in a short time, and with a Camel budget that allows the team to conduct the testing that Larrousse's financial straits

didn't last year, this story could have a relatively happy ending. If nothing else, Camel Team Lotus promises to be the most popular in pit lane...

1990 will be something of a water treading year for Tyrrell, as Uncle Ken anxiously awaits delivery of his Honda/Mugen V10's for 1991. However, Harvey Postlewaite's 018 chassis was effective enough in 1989 to suggest that the larger budget realised by the signing of Satoru Nakajima will allow the team to develop its aerodynamically efficient concept further. Together with Minardi, I'd expect it to be the most effective Cosworth DFR-powered outfit, and in Jean Alesi it has a true star in the making who could well spring a surprise in the right conditions.

Minardi, likewise, has Pierluigi Martini, a man once ridiculed in Formula One but now rightly regarded as a charger worthy of a good seat. The Faenza-based team made a lot of progress in 1989, especially when it introduced its M189 chassis in Mexico, and who will forget those fleeting moments when PiEro led them all in Estoril?

Much of the success was a product of thousands of miles of testing on Pirelli's rubber, even if that failed to live up to Goodyear's in race conditions, and certainly Minardi will again spearhead the Italian company's challenge. Don't expect new team-mate Paolo Barilla to set the



world on fire, but look to Martini to impress again.

Both Brabham and Scuderia Italia remain faithful to Pirelli too, the former emerging from a winter of uncertainty to face the future despite all the gloomy predictions.

As things stand currently, the incarcerated Joachim Luethi remains the owner, but former Onyx owners Mike Earle and Joe Chamberlain, and Italian businessman Romeo Casola, now manage the set-up on his behalf prior, as most see it, to full sale as and when Luethi is released. Martin Brundle has been driven out by "contractual problems", while Stefano Modena remains, even though speculation had Emanuele Pirro taking the former's place at one time, and Sergio Rinland stays on to pen the BT59 which will again rely on Judd power. However, the rumour factory strongly tips Brabham as the recipient of the

Porsche V12 when it appears around May. Brabham made good progress in the early part of 1989, the BT58s looking particularly good on slow circuits, and winter work has concentrated on improving the high speed aerodynamics.

Pirro eventually slotted into the second seat at Scuderia Italia, alongside the mercurial Andrea de Cesaris. For some time Belgian Bertrand Gachot was a dead cert to replace Alex Caffi, but his backer Jean Pierre van Rossem was late signing the deal due to the death of his wife, and Pirro ducked under the wire first.

Quite how the Brescian team fares without Caffi, around whom it was set-up for 1988, remains to be seen. Expect Pirro to be smooth, and de Cesaris to be as unpredictable and accident-prone as ever.

Caffi, of course, lends a further Itali-

anate look to Arrows, where Michele Alboreto took refuge after quitting Larrousse. The Milton Keynes team has concluded its deal with Footwork Arrows Racing, but its design programme had yet to be announced as this was written, and it faces a tough season in which its major asset will be the fresh injection of solid financial backing from its new Japanese owner.

Larrousse ESPO also benefits from a sizeable input of capital from Japan, and initial testing has indicated that Aguri Suzuki may not be too far off the promising Eric Bernard's pace. The Frenchman is rated better than Alesi by informed observers, which bodes well for him, while the increased backing should allow Larrousse to exploit the virtues of the Chris Murphy/Gerard Ducarouge Lola LC90 far better than it could the LC89, which was generally reckoned to be second only to the Ferrari in the handling stakes.

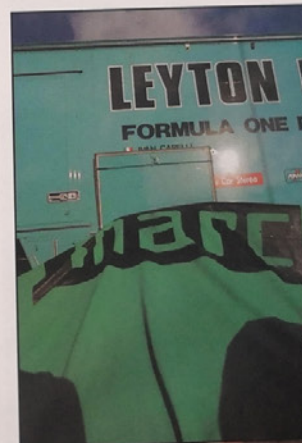
Larrousse refugee Philippe Alliot rejoins Ligier to partner Nicola Larini, which gives the explosive Guy Ligier a strong, enthusiastic driver pairing. All he needs now is the machinery to go with it but still the French team boss has been unable to lure a top designer to his impressive Magny Cours facility.

March and Onyx continue with two car teams and the same driver pairings with which they ended 1989,

Ivan Capelli and Mauricio Gugelmin relying on updated versions of the occasionally promising March CG891, and Stefan Johansson and JJ Lehto updates of Alan Jenkins' Onyx ORE-1. The Leyton House team had an awful 1989 season but feels it has identified many of its inherent problems, while Moneytron Onyx is recovering from the reshuffle which ousted Earle and Chamberlain and made Johansson and Jenkins shareholders. Both equips face a crucial year.

Osella continues with a single car team formed around ex-Ligier pilot Olivier Grouillard, while Coloni has sold 51% of its shares to Subaru and will run a single car powered initially by the Japanese company's flat-12 engine until an all-new V12 is available mid-season. Euro Brun will run at least one ER190 for Roberto Moreno, and this will use the intriguing Neotech 70 degree V12 engine designed by Rolf Peter Marlow, who produced the four cylinder BMW turbo unit. As this was written neither AGS nor Zakspeed had indicated their plans, but while the French team is likely to run two cars, the Germans may opt for one, for Bernd Schneider or Gachot.

A prediction for World Champion? Problems or not, I'd be surprised if A. Senna didn't have his name on the trophy in 12 months' time.



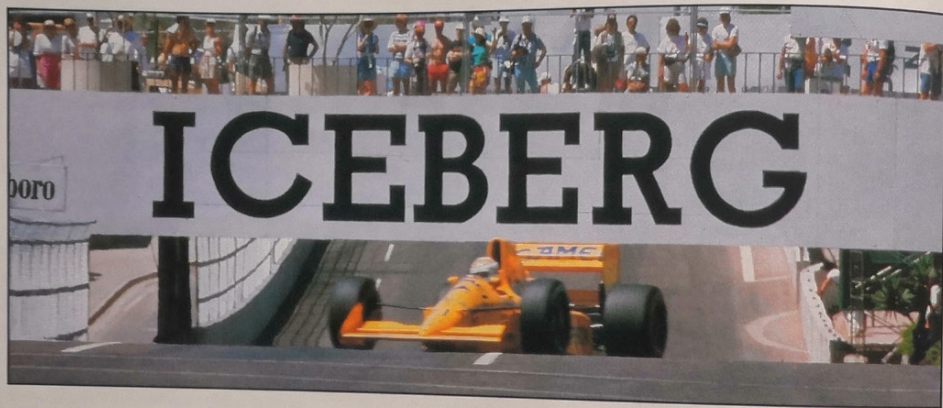
Insert: Leyton House Racing - out of the shadows in 1990?

Below: Man with one eye on his team mate: how will Berger handle McLaren and Senna?



PHOENIX

from the ashes



Above: Apt sponsor for Arizona heat... (Bob Bolini, Photosport)

Given the bad taste left in the mouth by some of 1989's more unsavoury incidents, the first Grand Prix of 1990 has the chance to live up to its name. Phoenix can lift Formula One out of the ashes of an acrimonious year and rekindle people's enthusiasm for the world's premier motor racing category. The next few pages offer an insight into the build-up to the United States' only Grand Prix, a look back at the action in the Arizona city's first Formula One race last year, and a guide to what is on offer for anyone making the trip to the States to start the 1990 season in style. Our thanks to Doug Blackman, media liaison and PR director of the IPGP, for his invaluable help in putting this feature together.

* As in 1989, the Phoenix Grand Prix is sponsored by high fashion Italian clothing company Iceberg. World-wide exposure through Formula One television persuaded the company - whose products are not the easiest to come by in America - that support should be maintained.

* The circuit itself will be identical to the one inaugurated last year (see

diagram). Some grandstands have been rearranged to accommodate new buildings on the edge of the track. But construction of a new stadium for the Phoenix Suns basketball team means the circuit faces alteration for the 1991 race.

* The race distance has been cut from 82 laps to 78 to comply with the two-hour limit on any Grand Prix.

* Unlike other street circuit races such as Adelaide's, the Phoenix Grand Prix is a cooperative effort between the race promoter and the City of Phoenix. The promoter provides the event, the city comes up with circuit and stands; in fact the 1989 race took place on a circuit that had been planned and built in just four months.

...there is a problem over the fuel the Grand Prix cars will be using...

* As modern practice demands, Phoenix - through the good offices of its Grand Prix Committee - will offer a variety of ancillary activities to enhance the festive atmosphere of Grand Prix week. Miss Iceberg Phoenix Grand Prix pageant...an historic car race at Firebird International Raceway... a concours one month before the race itself...an eight-kilometre foot race and a 10-kilometre bike race on the circuit, both events open to Grand Prix drivers but also to members of the public: all these and more will crowd into the busiest week of the Phoenix social calendar.

* Where else but in the United States would a Grand Prix be accompanied by a Rodeo? The Phoenix Jaycees Rodeo of Rodeos - one of the largest events of its kind in America - will run from Wednesday to Sunday in race week. Its aim is to give people new to the great Southwest a flavour of what the real West was all about.

* Eddie Cheever will be sadly missed, not only because he scored a rostrum finish in his home town Grand Prix last year, but because of

the unsung work he did off track. The likeable American, no longer active in Formula One, paid a visit to the Phoenix Children's Hospital, but the youngsters will not be deprived of their share of hero worship this time: Derek Warwick and Michele Alboreto will visit the hospital on the Wednesday of race week.

* The caring face of Formula One is also shown in the fact that there will be a pit walk, on the Thursday, for groups of children from the locality, some of whom are seeking adoptive parents, while others are there courtesy of the Make-A-Wish group who arrange special occasions for the terminally-ill young. Several of Formula One's major sponsors are expected to make donations of one kind or another to make these children's day one to remember.

* Funny world, Formula One: the Phoenix Grand Prix will be beamed live to countless countries around the world - except the United States.

It starts at 2pm local time, which is 4pm in New York - but the first telecast is not scheduled until 9pm. The reason? College basketball under the auspices of the National Collegiate Athletic Association has to take precedence...

* While ticket prices are on a par with 1989, the city fathers have decreed that general admission to the Friday of Grand Prix weekend will be free of charge, an offer that should make Arizona in Spring an even more tempting prospect for an American public notoriously unresponsive to the delights of Formula One racing. Arizona residents can receive discounts on certain seating, too: \$65 instead of \$85 for the Sunday, \$95 instead of \$125 for three-day specials.

* Potential problem, political as usual: there is a problem over the fuel the Grand Prix cars will be using in Arizona. "Legislators, start your engines please." That parody

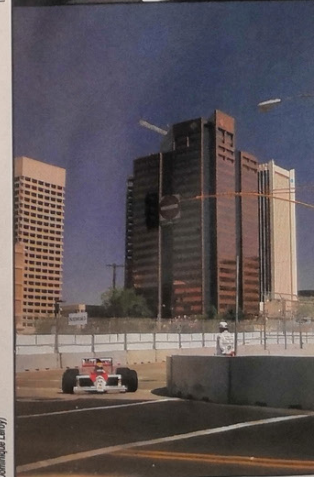
on the famous start to America's Indianapolis 500 race appeared in the Phoenix Republic newspaper when it was discovered that Formula One fuel does not comply with Arizona pollution standards. Local law requires fuel to be at least six per cent oxygen to burn cleaner, while Formula One fuel contains just two per cent oxygen. The matter was before the Arizona Senate as we went to press, but not expected to cause a major problem.

* Street circuits are notoriously unforgiving on Formula One machinery, so it will be no surprise if the 1990 generation of Grand Prix cars is not seen until San Marino while last year's are written off in the Arizona walls!

* A cool \$365,000 has gone into the effort of extending the Phoenix garages by 16 feet or so to give harassed team personnel a little more breathing space. This means spares can now be kept indoors, while hospitality areas on the pit roof will also be roomier.



(Allsport/Pascal Bonneau)



(Dominique Leroy)

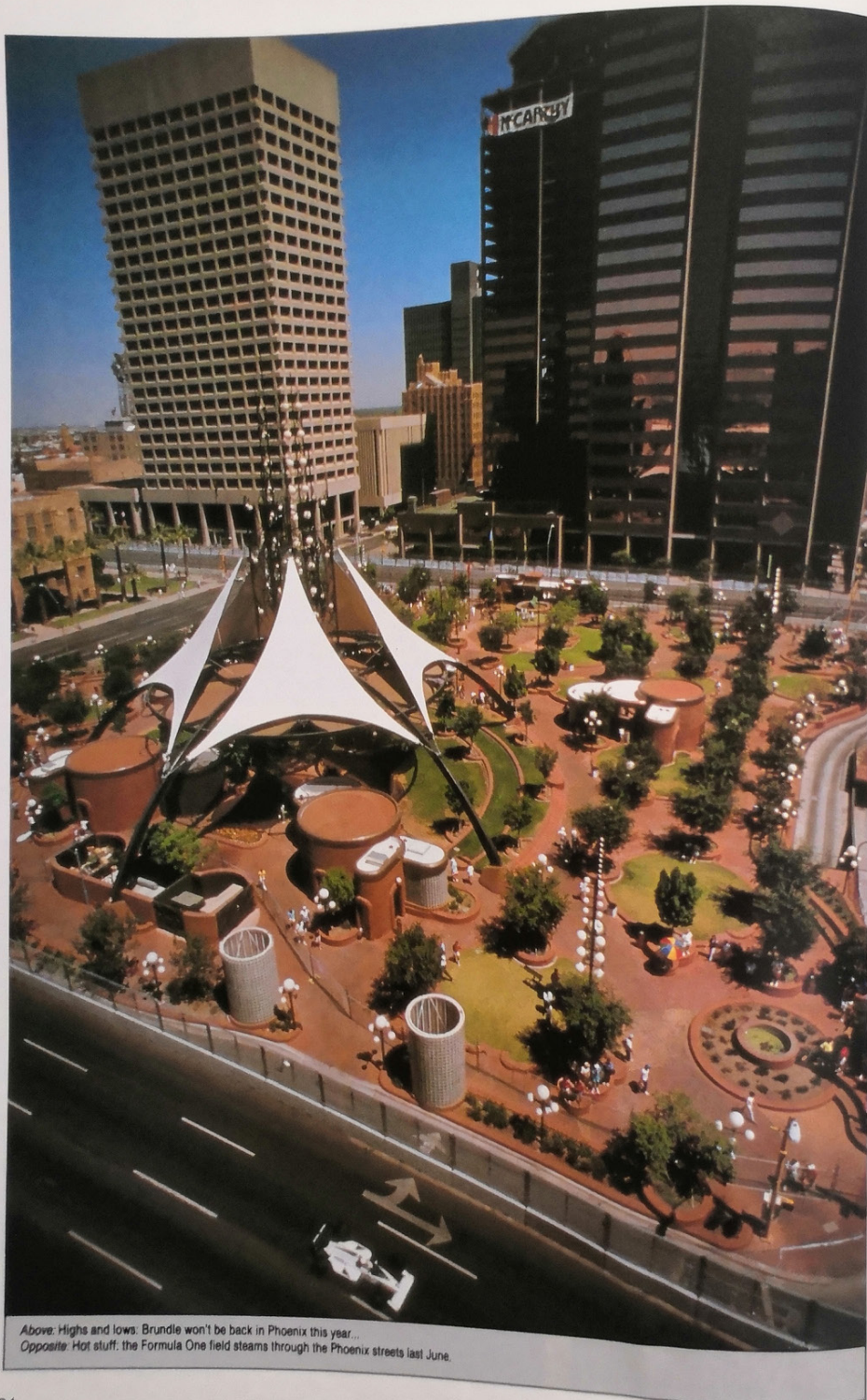
Left: Ups and downs of Formula One: Danner was 4th in Phoenix 1989, out of a drive in '90
Below: Ups and downs: Home town hero in '89, Cheever is out of Formula One in '90 too (Bob Bolini Photosport)
Far Left: Sunday Traffic...
Below Right: Prost opened his American account when he left the 1989 Phoenix field behind



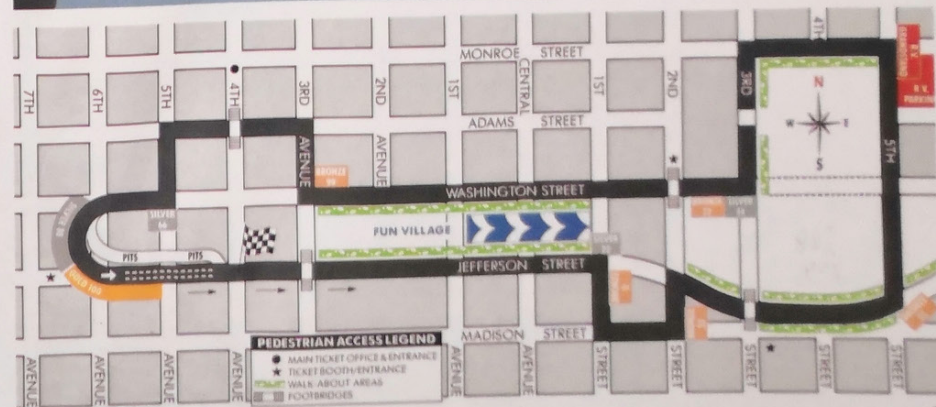
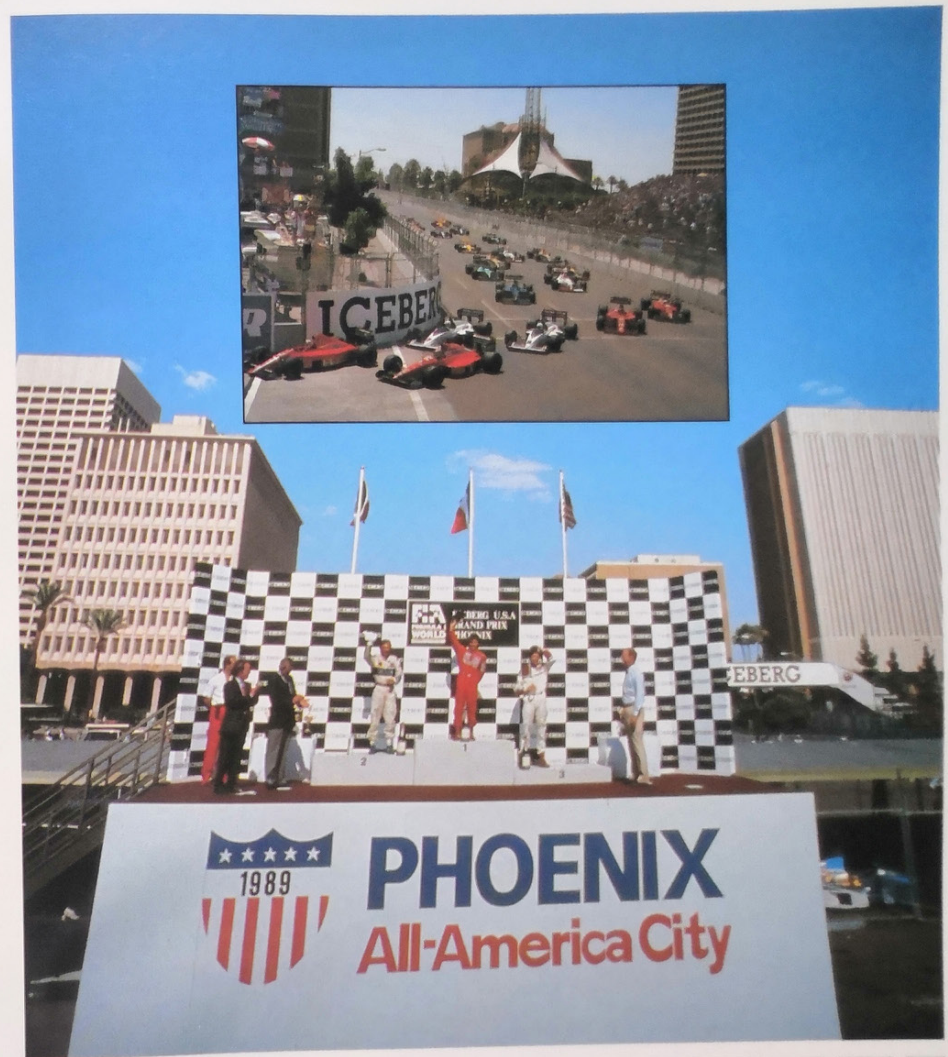
(Bob Bolini Photosport)



(Allsport/Pascal Bonneau)



Above: Highs and lows. Brundle won't be back in Phoenix this year.
 Opposite: Hot stuff: the Formula One field steams through the Phoenix streets last June.





ABSOLUTELY 100%:

DEREK WARWICK'S NEW DECADE

by Derick Allsop

If they gave the Championship for enthusiasm Derek Warwick could have more than Fangio. It's endearing, it's infectious and it just might prove the catalyst Lotus require.

The Norfolk camp won't be sorry to see the back of the Eighties. Promise and hope turned to anguish and despair. Failure to qualify for last year's Belgian Grand Prix was the ultimate indignity.

By then, though, changes were underway, changes that convinced sponsors Camel they weren't about to throw away good money after bad. A new management team were bedding in and they had negotiated a deal to switch to Lamborghini engines.

Ulsterman Martin Donnelly, already a member of the stable, would be promoted to a regular Formula One ride and another British driver, the vastly experienced Warwick, would take the number one mount.

Apart from the knowledge and ability acquired over 115 Grands Prix, Warwick brings with him unbridled optimism, and Lotus need that as much as any horsepower Mauro Forghieri and his crew can muster. Warwick's career has climbed and tumbled in a manner that would have left most with no stomach to go on. Here he is, in his tenth season of Grand Prix motor racing, still seeking his first win. Yet still he smiles and still he believes. And still he cajoles those around him to smile and believe.

At the age of 35 he still talks like a man who couldn't qualify for all but the last race in his first season but nonetheless convinced you he really could make it next time. He is as spirited and animated as ever.

"What keeps me going is the fact that I love motor racing," he says. "I get a buzz every time I sit in a racing car. I get a buzz every time I see a transporter. I get a buzz every time I start up the engine. I go to bed dreaming about motor racing. Still, after all these 100-odd Grands Prix.

"I still have 110 percent commitment, I still have 110 percent belief that I

can win. I'm still a racing driver. I always said that if I was earning £1 a race I'd still be a racing driver. Just a poor one.

"I consider myself very fortunate. I'm married to a beautiful woman, I have two gorgeous children, I live in Jersey, I'm fairly well off and my job is something that means more to me than anything else. What have I got to worry about?

"If there are drivers out there who don't enjoy their job — and I think there are a few — I just feel sorry for them. There aren't a lot of laughs because there is a lot of pressure and a lot of people don't know how to handle the pressure. I can because I don't let things affect me.

"I still have 110 percent commitment, I still have 110 percent belief that I can win..."

"If you call me a dreadful racing driver it doesn't worry me because that's just you thinking that. As long as I'm happy with what I'm doing, that's all that matters. I haven't proved it yet, but I know I'm every bit as good as Ayrton Senna, Alain Prost, Nigel Mansell and Gerhard Berger.

"I think if I had made different decisions in my career I'd have been winning races and would have been World Champion by now. The fact is I chose a certain route and it back-fired on me. That's life."

Warwick had to make that crucial choice in 1984. Until then his course had been direct and swift-flowing. The early rapids at Toleman gave him the opportunity to demonstrate his character, his determination to fight against the odds.

Renault, suitably impressed, called him to the Regie for 1984. He had second places at Zolder and Brands Hatch, and Gerard Larrousse didn't hesitate to offer him a new, improved contract for 1985.

"1984 for me was a fantastic year and Larrousse put a lot of pressure

on me to stay with the team for '85. It was actually at the British that I committed myself and when I look back now I obviously have to say it was the wrong decision.

"I could have joined Lotus, I could have joined Williams. But I was having a good time, I was with a major manufacturer and things didn't look better elsewhere. At the time it seemed the right way to go.

"Nigel was having a bad time at Lotus but Williams signed him and he went on to win 13 races for them. At Renault there was a big shake-up and things went from bad to worse. It was a shame but I have no regrets."

The irony wasn't lost on any of us. Warwick and Mansell were Britain's bright young men, but Warwick emerged as 'the likely lad' while Mansell's support dwindled. So what of their 'rivalry' in those days? Warwick laughs. "There was no rivalry between us. Nothing. I remember there was a Renault press conference — Lotus had Renault engines of course — and people were trying to set Nigel and me up against each other. We just made a big joke of it.

"I've always got on well with Nigel. Even before his success I had no problems with him. In a way Nigel has done more for British motor racing than anybody. Yes, I'd rather it had been me, but I bear no grudges.

"People made a big thing about the fact that he was British, I was British, he was winning, I wasn't, and therefore I must have been hacked off. No, I get hacked off if Ayrton Senna's beating me, if Alain Prost's beating me and if Nigel Mansell's beating me because I don't like losing to anybody. It doesn't matter whether he's Brazilian, French or British."

At the end of 1985 Warwick seemed certain at last to sign for Lotus until Senna blocked the deal. That might have finished his career but he joined Brabham after the death of Elio de Angelis the following May.

"I'd talked to Lotus at various times from 1983. At the end of '85 I put all my eggs in the Lotus basket



The new cockpit HAS to be more comfortable than last year's Arrows!

(Allsport/Vandystad)

and Senna smashed them. I had nowhere to go. There was nothing else. I was very angry. I felt a lot of malice towards Ayrton.

"Then, as things developed, I suppose if anything I began to feel a bit of admiration for him. He had so much bad press and yet stuck to his guns because he believed he was right.

"Maybe that's why he is so special. He is single-minded. He doesn't give a damn what anyone says or thinks. I don't think it's the only way to go but it's obviously what turns him on.

"Now it's no problem at all. I have a firm belief that the world turns full circle. I feel sorry for Ayrton. He's a great driver, possibly the greatest ever, but I think at the end of the day I'm much luckier than he is."

For the world to turn full circle for Warwick, he acknowledges he needs some fairly dramatic movement. "Obviously I'm running out of time, but I'm driving better now than at any time in my career. I'm younger than people like Nigel, so age isn't really a big problem.

"My ambition at this point in time is to bring Camel Team Lotus back up to the front of the grid because then I'll be there with them."

Warwick, like everyone else, is knocked out by the S-O-U-N-D of that Lamborghini engine and bel-

ieves the entire Lotus operation is on a steep upward curve. He does not, however, make rash predictions about instant success.

"Realistically, we are looking to '91. That's when we can make a genuine challenge..."

"I'm not kidding myself. We are not going to win our first 15 Grands Prix, but we can go for the rostrum this season and, if we get lucky, perhaps come away with a win.

"Realistically, we are looking to '91. That's when we can make a genuine challenge. The important thing is that we are on the right lines. The car is looking good and the thing about the engine, apart from the sound, is that it is so smooth.

"This is the right time for me to be joining Lotus because things have changed here. The crisis, if you like, is over. The place is buzzing from top to bottom and we have a package that can, I think, put us into Division One, ie with Honda, Ferrari and Renault.

"My options were not Ferrari, McLaren or Williams, but now I'm

here I can make myself believe this is a better decision than joining McLaren, the package I've got here is something that will challenge Honda.

"I think this is where a lot of drivers go wrong. They're driving an Osella and wishing they were driving a McLaren. I don't. If I'm driving an Arrows then I'm driving an Arrows. I've never wished that I was somebody else."

If that elusive win does come Warwick's way, I think it's fair to assume there will be some celebration.

"My career will not be complete without a win," he says. "I've won in every formula of motor racing I've done — from go-karts to stock cars, Formula Ford, Formula Three, Formula Two, sports cars. Everything — except Formula One. If I finish my career without a win I shall be very dissatisfied.

"I know I have the ability, I just haven't had the opportunity. That's not sour grapes. It's just the way it is. People don't realise how easy it is to win in a good car, but it's bloody difficult to finish tenth in a useless car.

"One thing's for sure, I'd be no different if I'd been a bigger star in Formula One. I think I would have been just the same person. Absolutely 100 percent." □



Location: Lotus Formula 1 team headquarters, Ketteringham Hall.

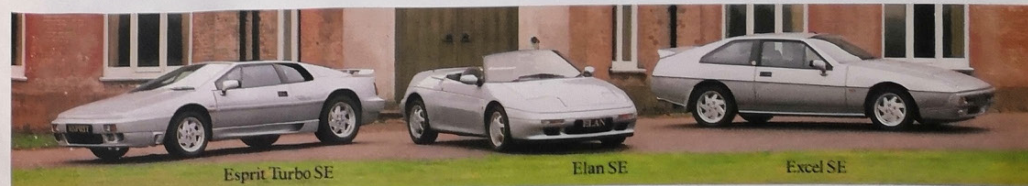
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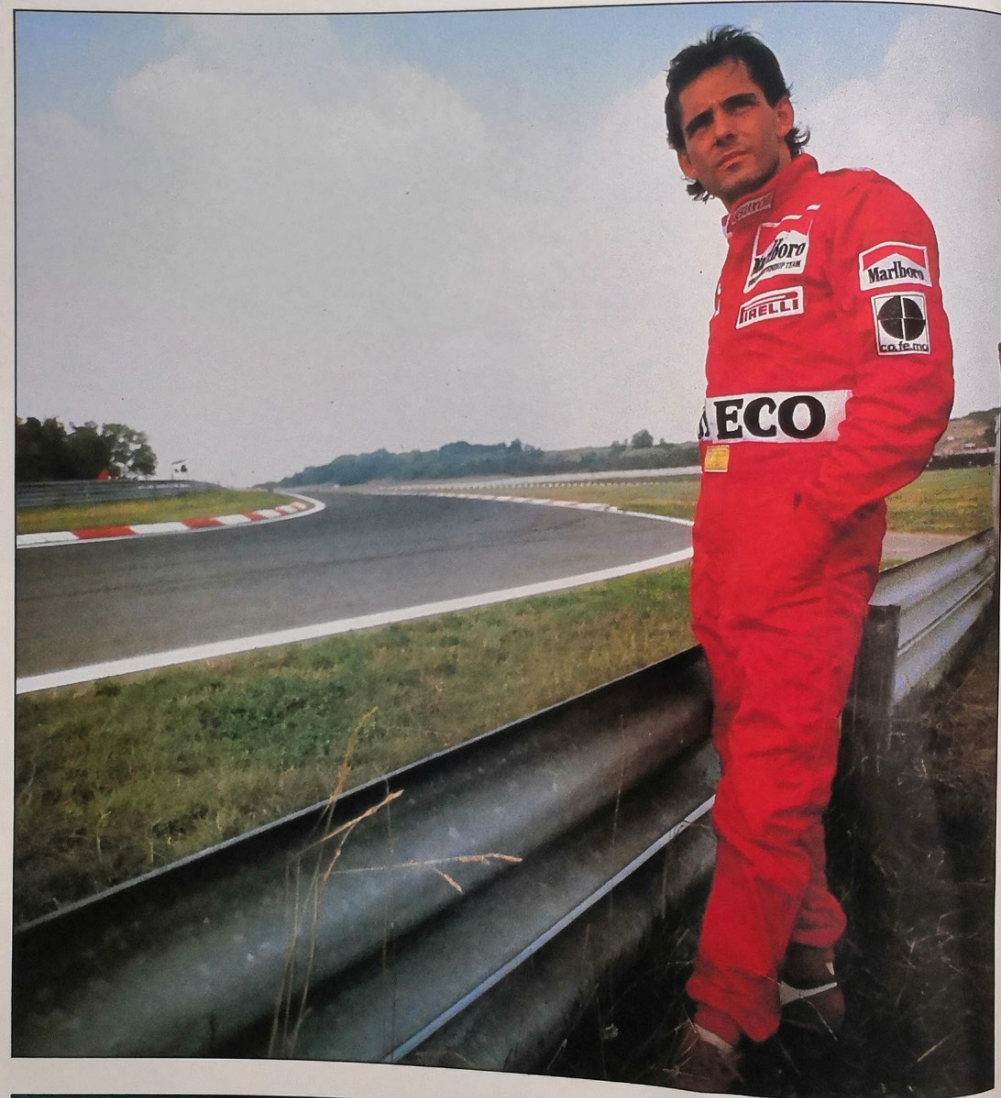
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ALEX CAFFI

MOVING CENTRE STAGE



BY BYRON YOUNG

Standing in the pit garage you didn't need a signpost to tell you where you were. It was cold, biting cold as the wind swept across the innards of the Northamptonshire circuit and flooded through the only open garage and out onto the track. The rain lashed the pit wall, lashed the empty stands, battered the huddled group of curious onlookers and splashed into every puddle on the pit lane. Yes, it was winter testing at Silverstone. The new season, and the new era, began for Alex Caffi, Arrows driver, very much as the last one had ended... in a downpour.

The rain destroyed any chance of useful testing but then that wasn't the reason why Arrows and its new recruit were here. This was the first meeting... the eyes across the dance floor before the music begins. The soggy Silverstone morning was good for four laps. Now Caffi was pressed against the garage wall talking to a friend. The friend was taller and Caffi at 5ft 4", unconsciously made up for the difference by standing on a discarded plank of wood. I coaxed him into my warm car at lunchtime for the promised interview.

Top of my agenda was the question: why the sudden move from the home town family team he had raced with for the last two years? "After a good race in Phoenix Scuderia Italia had pushed me to sign a contract for 1990. When I signed they promised me I would have a good engine for '91, a test team and other things which would make the team better. But at the end of the season none of this looked like being done. Jackie Oliver came up to me in Adelaide and said that if Footwork agreed to pay the penalty to buy me out of my contract I had the possibility of going to Arrows."

Simple. Within a month the deal was done. Footwork, Arrows' new 'sponsor', footed the bill for one billion lire (\$50,000 - \$100,000) and captured one of the most promising drivers of the decade at a bargain-basement price.

"Leaving Scuderia was a difficult decision to make. The team base is 10 miles from my home in Brescia. If I needed a seat fitting or anything it was easy. But I decided one more year there wasn't good because I wouldn't have learned anything more. I'm glad now I made this decision because I feel good here —



Alex Caffi — Looking for inspiration in England

the world of Formula One is in England not in Italy. The future for me, for my career, is here. Another reason to change teams was because I wanted to learn to work with an English team to be ready for the future when I am with a competitive team — I hope it will be Arrows." The feelings seem to be mutual. The team likes its new recruit already. "It's a real coup for us to get Alex," says Ian Harrison. "Michele (Alboreto, his Arrows team mate) says he is quick" he adds, heavily emphasising the last word and nodding.

What is remarkable about Caffi is that he has got where he has purely on merit, surviving on sheer racing talent — and in Formula One that

"Leaving Scuderia was a difficult decision to make..."

is the long way around. Caffi is also remarkable for his character. The only thing that stops him filling Derek Warwick's shoes completely as the team's Mr Nice Guy is his genuine shyness.

Caffi's climb to Formula One has certainly not been meteoric. It may become a legendary story, like Mansell's, but isn't one yet. After injury ruled out his leading passion,

motorcross, he was Italian Fiat Abarth champion, runner-up in the Italian Formula 3 championship in 1984 and 1985 and third in 1986.

Just when it seemed that his career was faltering the Osella Grand Prix team gave him his Grand Prix debut at Monza in place of Canadian Allen Berg.

Like many young drivers before him Caffi had to choose: should he race for a second-rate team and face the real possibility that his real talent would be submerged in its mediocrity — or should he wait for a better chance that might never come? For Caffi there was never a real alternative. "At that stage I had not had much help in my career from sponsors so I decided to race at Monza and I was very lucky because it opened the doors of Formula One for the next season."

In one Grand Prix Caffi did enough to convince the team they wanted him for the following season. But it was a season to try the patience of a saint. Eight times he was sidelined by mechanical failure as the team struggled with outdated Alfa Romeo V8 engines. Only in San Marino did he get close enough to be classified and that was a lowly 12th.

But Caffi was making his mark. In 1988 he was lured to the newly formed Scuderia Italia. It was a

(Allsport/Vandystadt)

better team and Caffi made it show. With the Ford V8 bolted to a Sergio Rinland F188 Caffi was classified seven times and came agonizingly close to his first World Championship points with a seventh place in Portugal.

In 1989 with the turbos scrapped the Dallara in Caffi's hands began to shine. Andrea de Cesaris arrived at the team with the purse to claim number one status and the nightmare of prequalifying continued for Caffi in 1989. ("It's the getting up at five or six o'clock in the morning that I hated most," says Caffi), but by the third race of the season — at Monaco — he got those treasured first points and continued to show a deft Prost-like touch that was making his experienced team mate look distinctly average.

In Canada Caffi finished sixth in appallingly wet conditions, but the best opportunity of the season, at Phoenix, went begging. Incredibly it was De Cesaris who was the culprit. "I couldn't believe my eyes when he pushed me into the wall," said Caffi. "You expect those things from other drivers, but not your own team mate. When I asked him

"...to get into Formula One is the same as winning a World Championship for me..."

about it later he just said he didn't see me."

But Caffi's performances continued to build his reputation into one Jackie Oliver couldn't resist. Says Caffi: "For my personal ambition I would be very happy if I could get on the podium once. Last year Cheever and Warwick didn't do too well in qualifying but by the end of the race they were often in the first six — and I think that is the most important part, even though I enjoy the qualifying more."

Then there is the question of Caffi's new team mate, Michele Alboreto. A veteran of over 130 Grands Prix, Alboreto has been on the podium 22 times, won five races and started from pole position twice. With such a yardstick 1990 will bury Caffi's Grand Prix career or make it, simple as that. "It is not a problem for

me," says Caffi. "It is very good. He has been a good friend to me since I started my Grand Prix career. He was one of the top drivers when I started — he was with Ferrari when I was with Osella — and he gave me some solutions to some set-up problems."

If he survives Alboreto, World Championship points, wins and more are there at the other end of the rainbow. But what about a World Championship? "I have not had much help in my career and to get into Formula One is the same as winning a World Championship for me. It has been my dream since I was a kid. It takes many things to be a World Champion, the right engine, the right chassis and it is important to be strong in some situations, but not to be hungry all the time to have an ambition to go here, or go there. If the World Championship comes along that is good, if not it is not the reason of my life."

In his own way Caffi was saying "What will be, will be" but then perhaps it is easy to be that way when you have so much talent for something you enjoy so much. ■

First points: Caffi's brilliant charge at Monaco last season

(Allsport/Pascal Rondeau)



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PROST MANSELL

FRIENDS AT FERRARI?

by Derick Allsop

Alain Prost has the emotional scars as well as the medals to show for his services in Formula One. His third World Championship was achieved at enormous cost: the split with McLaren, the cold war with Senna, the rancour, the simmering resentment. You could barely move for the debris of human relationships. But now his faith in the old game was being restored. Here, at his new camp, there was open discussion, a sense of togetherness. Damn it, there was even laughter. A change of team always revives the spirits, of course, and everyone gushes goodwill at a time like this. The form, when you join Ferrari is to be even more gushing than you would anywhere else.

Prost though had never been a man to trade in platitudes and wasn't, he insisted, about to start now. He was experiencing a genuine uplift and sincere comradeship, the kind he had once known at McLaren. He was instantly at ease. He again had a team, and a partner, he could work with.

Nigel Mansell could have stood in the way of the Ferrari-Prost deal but knew such a stand would not have been wise. Prost, in any case, could enhance the team's prospects of toppling McLaren. His knowledge and experience would be invaluable. Their first session as team-mates was at Estoril and much of the week was lost between rain clouds unleashed by the Atlantic. Yet for Prost, Mansell and Ferrari these were days of significant progress.

Prost, his eyes bright, his face alive, says: "Coming here I feel an emotion, a motivation that is very difficult to explain. Yes, everybody knows Ferrari is special and everybody knows why. But it is only when you join Ferrari that you really know. Until then you only think you know. This is unlike any other emotion I

have experienced. You know, you want to do well not only for yourself and the team, but for a whole country. Everyone in Italy cares about Ferrari and you try to do your best for those people.

"The motivation also comes from inside the team. Everybody talks at Ferrari. Nigel, the engineers, the mechanics, everybody. They all want to go forward, make the car better. I lost this communication at McLaren. For the past two years it was a personal contact problem.

"Now McLaren is in my past. My motivation is to win the Championship for Ferrari. Sure, I want to win it myself and I shall be trying very hard to do that. But if Nigel wins it will still be a victory for me. To be part of the team is what matters. I want to help Ferrari, the team, win the Championship.

Nigel Mansell could have stood in the way of the Ferrari-Prost deal...

"Nigel and I have been friends for a long time. We think the same way about motor racing. On and off the track we have no problems. We work well together. As a team should do."

Mansell, who has had his share of internal conflict in the past, is equally confident their association will be both productive and peaceful. The Englishman says: "It's good to have Alain on board. We'll get on very well together. We are both

experienced professionals and approach the job the way it should be approached. We are open with each other and have no hang-ups.

"Alain has nothing to hide, he puts up no barriers. His record speaks for itself. He's achieved so much, he is such an accomplished driver he doesn't need to. I trust Alain finds I have the same sort of attitude. I certainly feel no need to put barriers between us. I feel that we can not only work together but have a good time, too. Alain, I'm sure, will agree that is just as important.

"Alain is revising his approach to Formula One. The last two years have altered his thinking about other people. Here he sees a different attitude. He finds it refreshing. People are not stabbing him in the back."

Prost and Mansell are bound not only by friendship and a commitment to Ferrari, but also a mutual yearning to unseat McLaren and prevent Ayrton Senna regaining the title.

Both acknowledge that McLaren are again almost certain to be the team to beat this year. Honda are unrelenting in their quest for more power and the chances are they will find it. They may even introduce their V12 sometime mid-season.

Ferrari — and the rest — are hoping the slight cracks that were visible in 1989 become destructive holes in '90. Suddenly the McLaren Honda didn't run trouble-free. And it didn't always run into a class of its own.

Much may depend on personnel changes. It seems reasonable to assume that Prost will be missed to some extent as a driver and a strategist. As Mansell says: "What makes Alain so complete is the work he does outside the car as well as in it. He brings everything together."



(Dominique Lenzi)

Left: "Everyone in Italy cares about Ferrari."
Right: "Eyes bright, face alive", new colours, old smile.



Alain Prost (right)



Michael O'Connell

McLaren would argue the Frenchman did not bring everything together last season. But then what can they expect from Gerhard Berger and his relationship with Senna? The Austrian is quick, competitive and hungry for success. He parted company with Ferrari claiming Mansell had received preferential treatment. If he is blown off by Senna, what then? And if he proves a serious threat to Senna, what then?

Not content with signing Prost, Ferrari have also lured designer Steve Nichols from McLaren. More brain-power to Maranello and, perhaps, another blow for Ron Dennis in the psychological warfare between the two heavyweights.

Ferrari hope they now have the combined ability to compensate for the departure of John Barnard. Nichols and Prost bring with them potentially important information from inside the enemy camp.

Prost is clearly relishing the prospect of a broader role: "I am very interested in the technical side and it is in my contract that I shall be involved in the technical discussions. I expect to spend quite a lot of time in Italy."

But what of the scarlet car and the development programme? The call from the drivers is, as ever, for more power and they should get it. There will be increased fuel capacity and work continues to refine and improve the semi-automatic gearbox. Mansell: "The signs are that the new engine will be good and there is no doubt that the team were right to persevere with the gearbox. That is now much more reliable and obviously the way to go."

Prost: "Yes, the gearbox is good. It is strange to start with but I am getting used to it now and I am sure that when we get to the first race I will be okay."

"We have a lot of development

work to do right through the winter and, of course, so much depends on that. You can think and say one thing at the start of winter but three months later find that it is something totally different.

"But the potential is here. That is why I came to Ferrari. When I signed for them I believed it was the right time to join them and now I am even more convinced. The future for the team looks good."

The 'tifosi', however, want to hear rather more than vague promises about the future. The burden of their expectations is the flipside to all this emotion and euphoria. And Prost concedes as much.

He says: "I have had a fantastic reception from the public in Italy and they all want to know whether Ferrari are going to win the Championship. It is a very difficult question to answer. All I can say to them is that it will be difficult, but possible. "A lot depends upon McLaren Honda. It depends how much they have been able to go forward during the winter — and also how much we and the other teams have been able to catch up. But it looks as though we are all going to have to beat McLaren Honda."

"...The future for the team looks good."

"Apart from Ferrari I would say Williams and Benetton should be strong this year. They came through more and more last season and could win races. It looks as if the competition is getting stronger. We must hope so."

Mansell: "Things are beginning to settle down a bit now that we are all normally aspirated and teams are getting more reliability. That should make the racing closer and more competitive."

Getting the feel of a Ferrari: Prost tests the scarlet car at Estoril.

"I think there's no question, though, that the Honda-McLaren package remains very strong. Williams have progressed with the Renault engine and could be the surprise team again this season. Benetton should be in the fray but there have been so many changes there that it is difficult to predict."

Much has been said and written about the 'shame' of last season, about the clashes and controversies that 'disgraced' the sport. It is usual at this time to call not only for competitive racing but dignity and fair play. Prost, for one, reminds his colleagues that 'we are supposed to be sportsmen.'

And yet Prost, a realist as well as a sportsman, has an interesting thought on the subject: "I believe we have to improve the image of Formula One but, you know, there are a lot of people at the races and watching on television who like the problems. They come for the accidents and all the nonsense. I don't like it because I would prefer it to be only a sport. But you have to accept that this is true."

Prost maintains that he has no plans beyond this season and has no idea when he will retire. He knows, though, that he can depart any time with a sense of fulfilment. For Mansell it is rather different. He has yet to win the Championship and, at the age of 36, his opportunities are dwindling. He is not obsessed with the title but at the same time he makes no bones about it. He wants it.

He says: "My one remaining ambition is the Championship. I feel I am driving as well as, if not better than, ever, I still love racing and enjoy competition. What keeps me going more than anything is the Championship."

"This is going to be the most important year of my career to date. I planned for 1990 when I joined Ferrari. It was a clearly defined two-year plan."

"The first year went fairly well. I won two races and with better reliability we could have been challenging for the Championship. But we are now ready for the onslaught. Ferrari are far better prepared."

"All things being equal as far as the equipment is concerned, I think I can win it this season. What I can say with certainty is that I'm looking forward to the year — and that I won't half be giving it a go." ■

1990 MOTOR RACING CALENDAR

Le Mans 24 Hours	Le Mans	June 16/17
United States GP	Phoenix	March 11
Brazilian GP	TBN	March 25
San Marino GP	Imola	May 6
Monaco GP	Monte Carlo	May 27
Canadian GP	Montreal	June 10
Mexican GP	Mexico City	June 24
French GP	Paul Ricard	July 8
British GP	Silverstone	July 15
German GP	Hockenheim	July 29
Hungarian GP	Budapest	August 12
Belgian GP	Spa	August 26
Italian GP	Monza	September 9
Portuguese GP	Estoril	September 23
Spanish GP	Jerez	September 30
Japanese GP	Suzuka	October 21
Australian GP	Adelaide	November 4

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LUCIANO BENETTON



Luciano Benetton (left), Chairman of the Benetton Group, and Benetton Formula Ltd. President Alessandro Benetton

(Benetton)

MARKET LEADER

by Timothy Collings

This is the second in a series of features looking at the new breed of Formula One team owners. To them, Formula One is the fastest form of advertising in the world and the perfect sport through which to market their companies. Luciano Benetton has brought style as well as ambition to Grand Prix racing. But, despite this phenomenal worldwide success, he has remained an enigmatic figure.

To those who saw it, the smile on Luciano Benetton's face on Sunday, October 22, 1989, must have been worth waiting to see. The Italian owner of the Witney-based Formula One racing team is not known for his effusive or public shows of emotion, pleasure or otherwise, but the first and only victory of 1989 for Benetton Formula must have touched him. The win, after all, came in Japan, Land of the Rising Sun, and, for the worldwide interests of the Benetton business empire, Land of the Rising Yen, a market which has had a strangely special hold on the Benetton imagination in recent years.

Luciano Benetton does not like personal publicity, however, and is prepared to go some way to avoid it. Hence, there were no sports page photographs of the bespectacled and long-haired Italian spraying Suzuki's champagne alongside race victor Alessandro Nannini. The circumstances of his victory aside, Nannini deserved his long-awaited triumph. Benetton, though, is not a natural motor racing fan and would probably admit he is rarely exhilarated by a Grand Prix. Yet he enjoys probably the most successful marriage between Grand Prix racing and high profile marketing in Formula One. His clothes are synonymous with his racing cars. And his stylised leisurewear is modelled by every chic teenager in every city in the world.

The success of Benetton in the fast lane of international marketing has been a unique achievement. Twenty-seven years ago, Luciano Benetton used a bicycle to deliver his sister Giulianna's hand-knitted sweaters to their customers in their homes in northern Italy. Today the bicycle has been replaced by grander and more glamorous modes of transport and the one-time cottage industry

has flourished and grown into a multi-national chain with a unique worldwide franchise structure. Part of that success has been due to the Benetton Formula One team which was created for, quite simply, nothing other than commercial reasons.

"Basketball and canoeing are really my sports, not motor racing, but we took the decision to go into Formula One because it was the best sport, the one most suited to our marketing requirements," said Benetton. "There was nothing else to it. At first we went in as sponsors with the Tyrrell and Alfa Romeo teams and later with Toleman. The decision to run our own teams and not be just sponsors was logical because we wanted to be clearly visible on our own and we wanted to be a success." Together with Giulianna and brothers Gilberto and Carlo, Luciano now owns Benetton Formula, a team designed to be as successful and stylish as his other business interests. Benetton are not only the world's leading knitwear producers, but they are also successful in other clothes markets, banking and financial services. According to the public relations handouts from the company, Benetton have more than 4,000 outlets worldwide in 60 countries and a new franchise opens every day. Their deliberately small well-designed shops stacked with vividly-patterned and brightly-coloured clothes have set new standards in retailing and the Formula One team, Benetton Formula, is seeking to pursue the same trail of success.

The signing of Briton John Barnard, as the long-term influence on design, and Brazilian Nelson Piquet, as an experienced and successful driving force alongside the emerging Italian Alessandro Nannini, has now lifted Benetton out of the cluster of teams seeking to challenge McLaren and Ferrari to direct competitors at the top level. And the latest decisions are all part of Luciano Benetton's grand design on taking Benetton Formula to the very top of motor racing.

"We are here to be the winners and to exemplify what is best in performance and style," said Benetton's commercial director and administrator Flavio Briatore, a man whose close working relationship with Signor Benetton is such that he is frequently expected to translate his instructions to the curious media in a variety of foreign languages. "And to be a top team you need the right

technical back-up at the top level which explains why John Barnard has joined us. It is no good doing it for just a day or two or a week or two — it is something to be committed to for several years to get consistency and therefore success.

"His contribution will be a valuable part of our efforts not just towards Formula One success but also towards success in the creation of a new business within Formula One. A business we are creating which will have Benetton style and innovation but which will create new images and pioneer new concepts within Formula One and motor sport. It will be wider than just Grand Prix racing and it will, of course, be very important for John to work with Ford very closely."

Such ideals are the work of Luciano Benetton. He sees his wealth helping to create something new within Formula One — a company within a team. A step to take Benetton Formula ahead of the Marlboro McLaren Honda success story. Although neither Briatore nor Benetton himself confirmed it, it seemed clear that Benetton Formula would one day be creating cars to sell to the public with a Benetton brand name and style stamped all over it. McLaren are already involved in the creation of road-going high performance sports cars and Benetton, with the genius of Barnard taken on board, will be aiming to co-operate with Ford in creating similar very specialised vehicles for the discerning and wealthy motorist.

"Basketball and canoeing are really my sports, not motor racing."

But before such ideals reach anything like reality, Benetton requires success in Formula One. "We have reached a point where we are among the leading challengers and now we have to go beyond that point," he said. "It is a difficult move. That is why we are aiming longer term. Such success comes over a longer period. Not over a short term. Our previous policy was to take on young and promising drivers and now it is to go for top drivers, established stars with top track records."

Benetton is serious about his motor racing even though he admits it is not his favourite sport. Indeed, he rarely refers to it as a sport. To him, it is a business and he treats it like one. Six years ago, when he first

went to Brazil with his name associated with Formula One, no one had heard of him or his clothes. He found entry to the country as frustrating and complex as anyone else.

Now he can barely arrive anywhere in South America unrecognised. He is known wherever he goes and he has to suffer the usual inconveniences of fame. But he has factories and outlets all over Latin America as consolation. Business is good and Formula One has succeeded for him in the high speed sphere of marketing. Japan? The story is the same. Three years ago, he made a decision to try and break into the Japanese market not with his usual clothes, but with a specific brand named Benetton Formula One. A solitary specialist shop was opened at Suzuka to test the market. It had to close within four hours. The following year, with much larger stocks, it lasted three days and did more than 600,000 dollars worth of business before closing... Today there are more than 60 shops in Japan trading in purely Benetton Formula One clothes. If ever a particular circuit could have proved the marketing success of Luciano Benetton's empire, it was Suzuka. No wonder he enjoyed that Sandro Nannini win last October. ■



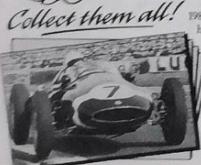
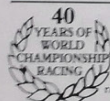
Above: Racing cars are not the only application for computer graphics!
Below: Famous helmet united with Benetton colours: Piquet at Estoril testing

(Dominique Leroy)

Opposite: Fruits of hard work: entrance to the Villa Minelli, focal point of Benetton's empire



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(Dominique Leroy)

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IN THE MARKET PLACE

BRETT TRAFFORD INTERVIEW

By Timothy Collings

Formula One will soon be as quick, slick and professional off the track as on it, if Benetton's newly-appointed Marketing Director Brett Trafford has his way. For Trafford, 35, one of a new breed of career marketing executives now moving into Grand Prix racing, believes the world's top motor sport has some way to go before it fully realises its commercial potential. And, predictably, he expects to see the Benetton-Ford team leading the way on and off the circuit in the next few years. "I feel there are three points in Benetton's favour when it comes to considering the team's ability to perform successfully commercially. These are, briefly, Benetton's professionalism, the competitive edge of the company itself, through the worldwide nature of its product outlets and its identity with youth, and the technology factor. John Barnard's part in this cannot be underestimated. He will give the team a technological and creative advantage."

Trafford, a professional marketing man with a background in national newspapers and magazines, arrived in Formula One in 1989 with Arrows. Just 12 months later, he has switched camps to Benetton, taking his particular skills, drive and determination with him in a bid to give the ambitious Ford-powered team a professional and successful commercial and marketing organisation to match their impressive progress in the world championship.

For Trafford, the chief task is to sell the team and its marketing potential to major international companies seeking worldwide exposure through Formula One. It is not easy

work even though the colour and excitement of Grand Prix racing makes a more attractive sales package to would-be sponsors than that on offer in several other sports. And the decision to spend money in Formula One is a big one. It is an expensive business.

"Lots of people worry about the figures they hear quoted in Formula One. I think quite a lot of senior management people find it quite scary. But if you calculate the television time all round the world throughout the year, it returns 50 to 100 times greater value than an equivalent spending power in normal advertising."

"And, more than that, Formula One sponsors usually do well. They enjoy it and succeed and they often stay in the game a long time. Look at Canon, Shell and Marlboro for example. But it does take a lot of courage to put this sort of sponsorship package into a marketing plan."

Trafford believes the competition for what is described as the "marketing dollar" is growing all the time and teams need to be more professional than ever in pursuit of this income. And he points out that the sponsors in Formula One are not putting their money into teams just for fun... No, they are expecting both on the track and in the paddock to enhance their images. That means a smooth all-round hospitality and marketing operation is essential to the overall success of the team.

It is in this area that he believes Benetton succeed because not only do they recognise the need to set up a professional marketing operation that operates hand-in-hand with the racing team, but they can also offer a unique competitive advantage: the already

established worldwide Benetton image for the fashionable youth. This, in turn, is good for the team and for Ford whose car sales are no doubt assisted by an association with the team with the most fashionable image in the paddock.

Trafford believes there may be some people in Formula One who do not pay enough attention to marketing. He thinks Benetton do and will succeed because they

do. "We already have a unique position and we are in the top four. Now we are aiming to become world champions. To do this we need a complete operation which includes marketing alongside racing and the development and technical work. For me, that means working together with Gordon Message and John Barnard for the future. We have some exciting times ahead."



Insert: Image-maker: Brett Trafford Main Photo: Piquet, Benetton, Ford: exciting times ahead?

A FORMULA ONE FIRST

BY STUART SYKES AND TIMOTHY COLLINGS

As readers of Prix Editions International's 1989 supplement on Williams Grand Prix Engineering will recall, a recent addition to the impressive Didcot facilities is the Conference Centre, a Formula One innovation put forward by commercial executive Colin Cordy. It has two main suites, named after Alan Jones and Piers Courage, the latter being the larger and boasting the latest audio-visual equipment allowing computer screen images to be projected for viewing on a main screen.

The fascinating museum area houses a collection of Grand Prix cars that have raced under the Williams banner, from FW06 to FW12, as well as the experimental 1981 six wheeler. As well as indulging in nostalgia, the Formula One enthusiast will also find much to enhance his understanding of the sport, from wind tunnel models and details of the crash-test requirements for Formula One chassis to an absorbing photographic survey of the great drivers who have graced Williams cockpits and amassed 42 Grand Prix wins for the team.

The Centre is the country's prime example of Formula One's development away from purely on-track activity into areas that cement the industry's relations with modern



Above: First of its kind: the Conference Centre at Woking
Below: The logo says it all...



business practice and build on the deep-seated enthusiasm that Grand Prix racing still commands. It is, however, a Williams showcase, and as Prix Editions International's Tim Collings found out, the ideal place in which to launch a new sponsorship designed to keep Frank Williams and his team in the forefront of Formula One...

Frank Williams' Renault-powered team will be driving with the backing of substantially more than beer money when the new season opens amid the Arizona cacti on March 11 following their announcement in January of new sponsorship, worth more than a million pounds, from the Canadian-based international brewers Labatt's. Labatt's, a company with a long history of motor sports sponsorship including support of the Canadian Grand Prix and the late Gilles Villeneuve, have invested a substantial but unspecified amount of money into the team. It is their first move into sponsorship of an individual racing team and is something of a coup for the Didcot-based equipe. Williams was clearly delighted. "I cannot think of a better company to join us. They understand racing and their existing motor sport sponsor-

ships in both North America and Britain have been superbly executed. We look forward to a long and fruitful relationship."

For Labatt's, the deal offers an ideal opportunity to promote their product around the world at a time when they are expanding their operations and making a serious push into the Italian market. They expect to make a particularly strong effort in Canada, the United States and Britain as well as Italy this year.

Labatt's will not be replacing any of the Williams team's existing sponsors and Canon will continue to be the primary sponsor of the team with Barclay cigarettes, Elf and ICI also remaining with them. Their arrival however will see the introduction of a new livery with a new colour scheme incorporating the famous Labatt's blue adorning the cars.

"We are expanding all around the world right now and there is no question that Formula One Grand Prix racing is the right vehicle to project our greater internationalism," said Labatt's chief executive Sid Oland. "We liked Williams' approach to racing and were impressed

by their record including four Constructors' World Championships in the past decade. And, in the middle of our negotiations, they won the Canadian Grand Prix right on our doorstep last year - that certainly helped their case!"

Surveying the year ahead, Williams agreed that McLaren, Ferrari and Benetton would remain the chief rivals to his own team. But, he added: "Motor racing is full of surprises. That is part of the excitement. Where the four premier teams are likely to go at the first half of the season is impossible to predict. But I would say the red and whites down the road at Woking will do the winning, will do the leading, to begin with and I think one can only review the situation after the first two or three races because when we get to Imola then we start to get an accurate picture in terms of horsepower, acceleration and reliability."

"Williams are starting 1990 stronger and more competitive than we did either of the last two years. I would go back to 1987 and say I think we were the equal then to what we are today. 1990 will see a very strong Williams-Renault team."

The 1990 Williams FW13 is powered by the latest engine from Renault Sport, the V10 RS2. Integrating all fluid circuits, the unit achieves a 48mm saving on overall length and 15mm on overall height. This, allied to the 67-degree V of its 10 cylinders, makes for an extremely compact installation, and thanks to new foundry techniques and materials also saves two kilos in weight over its predecessor.

As yet there are no ceramics, but this is one of several directions in which Renault are working. The RS2 also features a new Magneti Marelli electronic injection and ignition system.

Length: 620mm; width: 550mm; height: 425mm; weight: 139kgs.

As a matter of interest, this compares with the following dimensions for the V6 turbo, type EF4a, with which Renault made their own attack on the World Championships: Length: 480mm; width: 680mm; height: 640mm; weight: 160kgs.

Renault expect the experience of a 1989 season that yielded two race wins to help Williams mount an early challenge to the V12 units, as Frank Williams has said:

"There is no question they have made a lot of progress in their development of the engine over the past winter, but one cannot predict whether they will match up in the first few races against Honda and Ferrari. I am very optimistic and I would say that at the least everyone will be much closer at the front of the field."

"It's a good mix and it's truly a pleasure to work with our colleagues across the water in France. We looked forward to a good engineering relationship but it also became a good personal relationship and that certainly makes it easier to work."

Below: The Labatt's sponsored Williams-Renault FW13
Below Far Right: Smaller, lighter - and stronger? The V10 RS2



THE NUMBERS GAME FORMULA ONE ENGINES IN 1990

By John Blunsden

V8 or V12, or maybe V10? This fundamental question exercised the minds of the majority of Formula One's engine designers, and the teams who were to benefit from their endeavours, from the moment the rules which would govern Grand Prix racing in the post-turbo era were confirmed. Today, a full season into the 'atmospheric' formula, the problems raised by the question have yet to be resolved beyond all doubt. Instead, they have been answered through several conflicting solutions,

each of which has proved to offer certain advantages — as well as some shortcomings — when compared with the alternatives. If it were merely a matter of horsepower there would have been an almost irresistible case for going for the maximum number of cylinders permitted, namely 12. Such an engine can be expected to rev more freely than one with fewer, but larger and therefore heavier, piston/rod assemblies, and the higher the crankshaft speed, the faster the fuel/air mixture can be sucked in, ignited and converted into horsepower.

The two most serious drawbacks of the '12', of course, are weight and bulk, although a sufficiently large budget can go some way towards minimizing the former. In recent years, the use of exotic, lightweight materials has revolutionized the design and construction of racing car chassis/body structures; now, a similar transformation is under way in engine structures and components, but such advances do not come cheaply and are only likely to be affordable by the most generously financed teams.

Also, any weight reduction offered in this way will provide little if any



Above: Benetton buck the trend with a "nimble driver-friendly" V8.
Opposite: Lamborghini and Lotus: is V12 the right way forward?

(Alipor/Vandystad)

saving in overall length, which remains the fundamental weakness of the argument in favour of a longitudinally mounted V12 (or flat-12) engine. The requirement that a driver's feet should not extend beyond the front wheel centreline has caused cockpits to be moved fractionally rearwards (and in some cases made unacceptably cramped) during the past year, so intensifying the attraction of a more compact engine package. A further complication for this coming season is that it is no longer permissible to incorporate sidemounted fuel tanks as appendages to a relatively small main tank, as Ferrari did last season. Prompted by Gerhard Berger's fiery accident at Imola, FISA has declared that in future all fuel must be housed amidships between the engine and the rear fire wall of the cockpit, which for 12 cylinder cars could add further millimetres to an already long wheelbase.

The major attraction of a V8 engine, of course, is its compactness and consequently the freedom it offers the car designer in scheming a layout and profile for minimum weight and maximum aerodynamic efficiency (the latter, of course, is of vital importance in any car design, but especially so when the car may be lacking the horsepower of the toughest opposition). Lopping off two pairs of cylinders can be expected to save more than 100mm in overall length and achieve a reduction in weight of the order of 20kg, on top of the benefits to be derived from a (hopefully) more nimble and driver-friendly chassis and a smaller and therefore lighter fuel requirement. Another major benefit of a V8 is its lower manufacturing (and therefore selling) and maintenance costs which, assuming

it can offer acceptable performance and stamina, has to be a major consideration for at least half of today's typical Grand Prix field. However, with the exception of the Ford/Cosworth partnership, whose entire Formula One involvement (from providing the power for 12 Drivers' World Championships, 10 Constructors' Cups and 155 individual Grand Prix victories to being the major engine supplier to the vast majority of Formula One teams) has revolved around the V8 configuration, there is a consensus of opinion today on one aspect of F1 engine design. It is that if you want to win on a consistent basis you need more than eight cylinders and that if 12 are too many, 10 are an acceptable compromise now that fears about vibrational problems have been overcome.

You have to sacrifice a little of your compactness and accept some additional weight, but the extra cylinders make for a freer-revving engine and one moreover which may well be rather less 'top-endy' than a 12. This, it seems, was the philosophy behind both Honda's and Renault's decision to enter the 3.5-litre era with a V10. It was a compromise that served them both well.

The foundation of Honda's success (apart from a lot of money and single-minded endeavour) was their preparedness. Their first V10, the RA109E, was running before the end of 1987, and although the first benchtests were disappointing — initially the engine failed to deliver even 500bhp, let alone the first target of 600 — there was ample time to search for and find the missing horsepower. By spring 1988 the target had been comfortably passed, and by August the engine

was already being tested in a McLaren, when both lubrication and driveability problems were encountered.

These were rectified in the course of an intensive development programme during the remainder of the year, and before the engine appeared in Brazil for its first race its belt-type camshaft drive had been replaced by a gear drive to promote more accurate valve timing at high revs. During the course of last season the RA109E engine was run in five different specifications to suit various circuit and climatic conditions. Like most racing engine manufacturers, Honda are coy when it comes to talking power outputs, but they concede that by the end of last season they had 30bhp more than when they started it. This suggests that they went to Australia with around 670bhp, not that they were able to use it in the wet.

Renault's V10, which has a 67-degree cylinder angle compared with the Honda's 72 degrees and features pneumatic valve closing (as developed on their last Formula One turbo) instead of using conventional valve springs, also progressed through several phases during its first racing season and it was revving 1,000rpm higher in Adelaide than in Rio. Sensibly, Renault Sport's chairman, Patrick Faure, demanded that reliability be given top R&D priority, but this did not prevent a steady increase in power being achieved during a season which brought two Grand Prix victories in the wet and — perhaps of more importance in the long term — the cementing of a harmonious working relationship with the Williams team the like of which a few years ago would have been inconceivable. The full fruits of this accord should be seen during the months ahead after the late-to-arrive FW13 chassis has been developed to its full potential.

The legacy which John Barnard left Ferrari was the knowledge that with care and attention to detail a car bulky enough to accommodate a V12 engine can still be made to handle as well as, if not better than, anything else on the track. The Ferrari 640 chassis was fundamentally a very good one, and so was its V12 engine by the end of the 1989 season. By then, not only did it have a lot more power (12 months earlier it had been a very tame beast indeed) it also had a much more acceptable power curve, and when the novel semi-automatic control system for the car's seven-



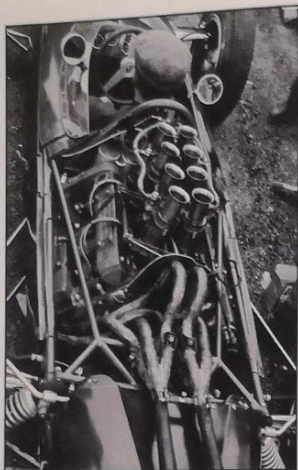
(Dominique Laval)

speed transmission behaved itself the Ferrari was a formidable contender, as was hinted at in Brazil, but demonstrated much more convincingly in both Hungary and Portugal. Alone amongst the leading contenders, the Ferrari engine has five valves per cylinder, an arrangement with which Cosworth experimented then abandoned for their DFR V8, Tickford tried without much success on the Judd V8 for Lotus and Yamaha themselves, pioneers of the technology, have yet to demonstrate convincingly with their own Formula One V8.

Mauro Forghieri's years of experience with Ferrari contributed considerably to his design of an 80-degree V12 engine for Lamborghini. Although quite bulky, it was claimed to weigh a modest 150kg, although it probably put on a few kilos in the course of its difficult first racing season in the back of Gerard Larrousse's Lolas. Last year it provided the most exciting sound in Grand Prix racing, but more important, by the end of the season it was demonstrating sufficient performance and reliability to attract the interest of Lotus in the Mark 2 version which Forghieri and his people were developing for 1990.

Without doubt the most impressive V8 of 1989 was the lightweight 75-degree Ford which Cosworth designed and developed for the exclusive use of Benetton. Unfortunately, it was late on the scene, and a crankshaft weakness, which only revealed itself after the engine had been run in the vibrating environment of a racing car, caused further delays so that effectively both engine and 1989 chassis were able to be raced for only half a season. By the end of it, Alessandro Nannini was beginning to offer some effective opposition to McLaren, Ferrari and Williams, and although his inherited victory in Japan was fortunate, his engine's performance that day was most impressive, the more so because it was in standard specification and was not, as had been thought at the time, the more powerful development version, which was raced in Pirro's car and is to be the team's mainstay this season.

Only the McLaren-Hondas and Gerhard Berger's Ferrari lapped the Suzuka circuit faster than the Benetton-Fords during the Japanese Grand Prix, and Ford's and Cosworth's faith in the V8 concept for Formula One success remains undiminished. Contrary to rumours



(Photo: Peugeot)

which have appeared in print elsewhere, Ford has not sanctioned the production of a V12 engine, nor has the company any intention of doing so in the immediate future. Whether such an engine is deemed necessary in the longer term will depend on what Formula One regulation changes, if any, are imposed for 1991 and beyond.

The Ford DFR with which the Benetton team raced the first half of the 1989 season also became the principal Cosworth-developed 'customer' V8 and will remain so during 1990, still supplied and maintained through independent engine builders like Brian Hart, Langford & Peck and Heini Mader.

John Judd, who in 1989 supplied the Brabham and Lotus teams with his 'standard' V8, the CV, which has a conventional 90-degree cylinder angle like the DFR, also rushed through a 76-degree EV 'special' for March in the remarkably short space of six months, and perhaps inevitably ran into a few problems with it to compound the team's many other difficulties. Most of the problems at circuits, however, were installation-related, and if these have since been overcome March could well be back to something like 1988 form this season. The longer-term March-Judd relationship, however, rests with another new engine, a V10, which has been given the benefit of a much longer gestation period. An extensive development programme will take place this year before a V10 March-Judd appears in the paddock for a Grand Prix, probably as a spare car well into the second half of the season.

The engine disappointment of 1989 was without doubt Yamaha's 75-degree V8, which was installed in

the back of the Zakspeeds, seemingly more in hope than in anger. However, before writing this project off as a fiasco it is worth recalling that Honda's return to the Formula One scene in 1983 (they had left it in 1968, remember) was also far from painless; maybe Yamaha's impact on the Formula One racing scene will never match Honda's, but it is likely to be far more credible than has been seen to date. Honda, Ferrari, Renault, Lamborghini, Ford, Cosworth, Judd and Yamaha will continue to provide most of the power of Grand Prix racing through 1990, although even more engines are on the horizon. The Austrian Neotech company's lightweight 70-degree V12 is heading the way of the EuroBrun team, the flat-12 designed for Subaru is going to Coloni, perhaps with a V12 to follow it, and Onyx, Brabham and Ligier have all been linked to Porsche's '12' although not before 1991.

By then, other engine suppliers will almost certainly have declared their hand. General Motors, Nissan and Toyota have been looking at Formula One, but before jumping to too many conclusions it is as well to remember that for the big guns of the motor industry motorsport is merely a means to an end. The real name of the game is selling more cars, and putting your name on an engine in the back of a Formula One car may not be the most cost-effective way of doing so. ■



(Dorling Kindersley)

Top: Compare and contrast: this was the 1982 Coventry Climax V8 in Jim Clark's Lotus. Above: All dressed up, but needing a Porsche V12 to go? Onyx are in the frame.

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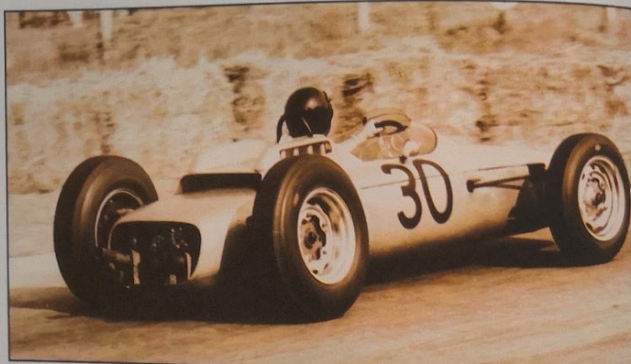
THE 200 BHP FORMULA

GRAND PRIX RACING 1961-65

BY DAVID PHIPPS

The cars were painted in their national colours, there was no such thing as sponsorship, and the top drivers were paid thousands rather than millions of dollars. But there was a lot of close racing, usually in front of large crowds, and much to interest the technically-minded. As usual, human ingenuity largely overcame the restrictions imposed by the rule-makers to the extent that 1961-65 was an important era in the history of racing car design. It was, in fact, symptomatic of the early sixties, a period when those who made the best use of limited resources achieved considerable success.

When the 1.5-litre unsupercharged Formula One was first announced it was greeted with derision. In those days "proper" racing cars had 2.5-litre engines mounted ahead of the driver, and little thought was given to chassis design or aerodynamics. The emphasis was on extracting as much power as possible from the engine — often at the expense of reliability — and the end-product was races with small fields (no prequalifying then!) and very few finishers. The reason given for almost halving



(Phipps Photographs)

the capacity of Formula One engines from 1961 onwards was safety. In the late fifties little attention was paid to circuit safety, and the interests of the circuit owners were paramount in this attempt — which as usual did not work — to reduce speeds and thus avoid the need to spend money on increasing the safety of either the spectators or drivers. The constructors — anxious to avoid the cost of building new engines — announced that the vastly reduced power outputs, coupled with a minimum weight limit, would actually make the cars more dangerous, at least for the drivers; the more outspoken went so far as to state that the new regulations would bring about the death of Grand Prix racing.

Not only did the 1.5-litre Formula provide a great deal of close racing, at lap speeds well above those of the 2.5-litre days, but it proved to be surprisingly safe. By far the worst accident occurred at Monza in 1961, when Wolfgang von Trips and 12 spectators were killed as the result of the Ferrari drivers' efforts to prevent Clark's Lotus staying in their slipstream. Subsequently Gary Hocking, Ricardo Rodriguez and Carel Godin de Beaufort all died as the result of practice crashes, but

several drivers — Clark among them — survived spectacular accidents with nothing worse than bruises. At first the British manufacturers, who had suddenly found their feet in Formula One, refused to have anything to do with the new regulations. Rather unwisely, they assumed that the FIA would accede to their request for a continuation of the 2.5-litre Formula, and by the time they realised they were not going to get their own way it was too late for them to build new engines in time for the start of the 1961 season.

Thus Ferrari had things all his own way in 1961, or would have done but for the determination of Stirling Moss. Using a privately-owned Lotus, with at least 30bhp less than the Ferraris, he drove one of the greatest races of his career to win the Monaco Grand Prix — and followed this up with an even more convincing victory in the German Grand Prix at the Nurburgring. But elsewhere Moss — and the rest of the opposition — were literally powerless to prevent a Ferrari walk-over.

Technically the most significant event of 1961 — even though the real impact was not felt until 1962 — was the arrival of the British V8

engines. The Coventry Climax unit made its first appearance at the German Grand Prix, fitted in a Cooper, and despite problems with the cooling system it led the race until Jack Brabham went off the road as a result of having rain tyres on his front wheels and dry-weather tyres at the rear. It also showed promise at Monza, and was by far the fastest engine at Watkins Glen, but each time it was eliminated by water leaks. The BRM V8 was seen only in practice at Monza, where it did one good lap but was generally far from race-worthy. However, with its very compact fuel injection system it looked noticeably neater than the Coventry Climax with its carburettors, and there was every reason to believe that with a little development it would be really competitive.

The engines which won all of the races in 1961 were originally designed in 1956-57 for the then-current Formula Two, and the cars were based on 1960 Formula Two chassis — all of them tubular. Ferrari's V6 engine started life as a 65 degree unit, but was extensively redesigned in 120 degree form; both configurations were used in 1961 but the latter proved more successful, winning at Zandvoort, Spa, Aintree and Monza. Its chief advantages were greater top-end power, lighter weight and lower centre of gravity — against which the 65 degree engine could only offer a better low speed torque. However, even a 65 degree V6 Ferrari was significantly more powerful than the four cylinder units produced by Coventry Climax and Porsche, as Baghetti showed by winning at Reims on his Grand Prix debut.

The 1.5-litre 4-cylinder Coventry Climax engine developed about 140 bhp, and the Mark 2 unit used by Moss and the British "works" teams (including BRM) had a maximum output of 151 bhp. The lower weight and better roadholding of most of the British cars helped to offset Ferrari's power surplus, and also placed them on more-or-less equal terms with the 160 bhp Porsche. The latter, after abortive attempts at a new chassis with double wishbone front suspension, was almost exactly as raced in Formula Two events in 1960 — right down to the Volkswagen "Beetle" front suspension. Like the British teams, Porsche had an 8-cylinder engine under construction, but it did not materialise until 1962.



(Phipps Photographs)



(Phipps Photographs)



(Phipps Photographs)

Opposite: Rouen 1962: Dan Gurney takes Porsche's only Formula One victory.
Above: The race that saw this era's worst accident: Clark and von Trips collided at Monza, 1961.
Above Right: 1961 again — and the brilliant Moss beats Ferrari at Monaco.
Right: Monaco again: Hill from Stewart, who has left the braking a bit late, Bandini and Brabham.

To all intents and purposes, 1962 was when the 1.5-litre Formula really got under way. The Coventry Climax and BRM V8s were raceworthy at last, the monocoque Lotus 25 made all previous chassis obsolete, and the Ferrari drivers suddenly found themselves struggling. World Champion Phil Hill was only ninth fastest in practice for the year's first Grand Prix, at Zandvoort, and only just managed to avoid being lapped by the BRM in which Graham Hill scored his first World Championship victory. In the early stages of the race Clark set the pace in the new Lotus and Gurney was third in the flat 8 Porsche, but both subsequently had transmission trouble. Clark also had transmission trouble at Monaco, and Graham Hill looked all set for another win until his engine ran out of oil, handing first place to Bruce McLaren. This was Cooper's only victory during the five years of the 1.5-litre Formula — a far cry from their World Championship days in 1959 and 1960.

Jim Clark and the Lotus 25 duly won their first Grand Prix at Spa, and with Dan Gurney's Porsche winning the French Grand Prix at Rouen the first four races had all been won by different cars. Then it was Clark's turn again at the British Grand Prix, with John Surtees second in a Lola, and Graham Hill drove brilliantly to win the German Grand Prix from Surtees and Gurney, only

4.4 seconds separating the three cars at the finish. BRMs driven by Hill and Ginther finished 1-2 in Italy, giving Hill a healthy lead in the World Championship, but when Clark won in America everything depended upon the outcome of the South African race. Clark had to win again to become Champion, and he was over half a minute ahead, with the race three-quarters run, when a loose bolt let the oil out of his engine and forced him to retire.

So Graham Hill was World Champion, BRM won the Formula One Constructors' Cup — and Ferrari did not win a single race. Nevertheless the Italian firm was working hard on a new car, whereas Porsche — who had won a race and were steadily becoming more and more competitive — decided to retire from Formula One and concentrate on GT events!

Notwithstanding the success of Graham Hill and BRM, the car of the year was undoubtedly the Lotus 25 — and the most remarkable thing about it was its simplicity. The chassis/body unit consisted merely of inner and outer skins of sheet aluminium, reinforced by sheet steel bulkheads and the rigidly mounted engine. Rubber fuel tanks were fitted within the body sides and behind the seat back — which sloped at 45 degrees — and every inch of space was utilised.

The suspension and all the other components seemed to fit into the 25 remarkably neatly, giving the car a degree of structural elegance which was one of Colin Chapman's hallmarks. But apart from the chassis/body it featured no real innovations; the suspension (with inboard springs at the front) was as on the 24, and the rubber couplings which permitted variations of the drive shaft length had also been used on the 24; the secret lay in mounting all these components on a structure which was stiffer and more efficient than the one it replaced.

The technical innovation of 1963 was the use by both Coventry Climax and Ferrari of fuel injection instead of carburettors.

In the chassis department BRM acknowledged the advantages of the Lotus 25 with a semi-monocoque layout, but their attempts to be different — tubular front and rear sub-frames and variable-rate inboard rear suspension — led to major handling problems, with the result that the new car was eventually abandoned in favour of the 1962 model. Less concerned about plagiarism, Ferrari produced their copy of the Lotus 25 in September, but were forced to use the V6 engine in it because the new V8 was not ready. However, it went very well in America until forced to retire — as in Italy — with engine trouble, and a further version of the car appeared in Mexico.

Although basically similar to the Lotus, the monocoque Ferrari had several distinctive features — the main one being that from the seat rearwards the engine was also the chassis, taking out suspension loads via a sheet steel bulkhead bolted to the bell-housing. In addition the side members had oil and water pipes running through them (on the Lotus they were carried in recessed channels beneath the floor) and were braced by a number of stiffening diaphragms.

1963 saw the emergence of Brabham as a two-car team, with Gurney's three second places helping them to third in the Constructors' Championship. Constructed on "old-fashioned" space frame principles, with the front suspension out in the airstream, the Brabhams were very fast both in a straight line and round corners — so much so that Lotus were not too proud to copy certain features of the Brabham rear suspension in 1964. Cooper, on the other hand, carried on with the cars which philosophically had changed

very little since 1960, and although they managed two second places (McLaren in Belgium and Maggs in France) they were no longer championship contenders.

Halfway through 1964 the odds looked very heavily in favour of another World Championship for Jim Clark. He had won in Holland, Belgium and Britain, and had led until engine trouble intervened in Monaco and France. Then a series of mechanical disasters coincided with a revival of Ferrari fortunes, with the result that Clark did not finish any of the remaining five races. Nevertheless, Clark would still have been Champion if he had won in Mexico, and until two laps from the end it seemed certain that he would do so.

With less than 10 km to go Clark's engine seized, as a result of oil pipe failure, and this meant that Hill would be Champion even though he was languishing in eleventh place after being hit from behind by Bandini. However, the Ferrari team knew that six points for second place would give the Championship to Surtees, and agitatedly signalled Bandini to slow down and let him by. Bandini duly obeyed team orders, and the 1964 World Championship was decided on the last lap of the race. Meanwhile, Dan Gurney won his second Grand Prix of the year almost unnoticed!

...it was not long before Stewart proved to be as fast as any of them...

The chief technical development of 1964 was the general adoption of 13 inch wheels. Brabham and Cooper had previously tried them at the front, and in 1964 the leading cars used them all round, in conjunction with wide section Dunlop R6 tyres. Two new cars appeared in 1964, the BRM and the Honda. The former, unlike the semi-monocoque design of the previous year, was an immediate success, and at least one car finished every race. The chief difference from the Lotus (and the Ferrari) was that the top of the front bay was completely enclosed, which meant that the BRM was

rather closer to true monocoque design than the other two cars. At Monza a new version appeared, with a reversed port engine on which the exhaust pipes came out of the centre of the vee, and this meant it was no longer necessary to provide cut-outs for the exhaust system in the "wheelbarrow arms" at the rear of the chassis.

The most interesting thing about the Honda was that its V12 engine was mounted transversely, which reduced the wheelbase but increased frontal area. In its chassis layout it clearly owed quite a lot to both the Lotus 25/33 and the 1963 BRM, the influence of the latter being most evident in the tubular rear sub-frame and inboard springs. Initially Honda probably made the mistake of under-estimating the opposition, but they were not dismayed by their setbacks and achieved what had seemed virtually impossible a year earlier when they won the 1965 Grand Prix of Mexico.

At Lotus, as already mentioned, the chief change of 1964 was the adoption of Brabham-style rear suspension, the aim being to reduce roll-steer effect. By now the 25 had become the 33, but the changes — other than to the wheels and rear suspension — were very much of a detail nature.

Like 1963, 1965 was very much Jim Clark's year, and this time the destination of the Championship was decided by August 1.

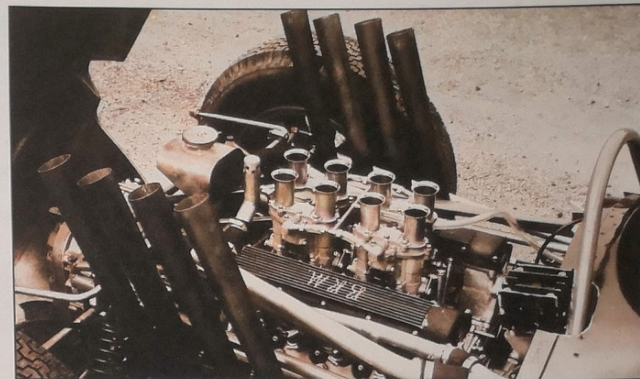
One of the big events of 1965 was the arrival of Jackie Stewart. During the previous three years Clark, Hill, Gurney and Surtees had become the elite of Grand Prix racing, but it was not long before Stewart proved to be as fast as any of them — with the possible exception of Clark. In his first race at Spa, which was also his first wet Formula One race, he finished second. He was second again in France and Holland, and recorded the first of his 27 Grand Prix wins in Italy. But the most remarkable achievement of all was probably his 8 min 26.1 sec practice lap at the Nurburgring, achieved after only a few laps of familiarisation.

Not surprisingly, as it was the last year of the Formula, there were few major technical developments in 1965, though Goodyear challenged Dunlop's monopoly in the tyre field, and finally broke it. The flat 12 Ferrari never quite came up to expectations, the V12 Honda did not find its form until the last race of the year, and the long-awaited

Coventry Climax flat-16 did not race at all! Except for Mexico every race was won by a V8 (six Coventry Climax, three BRM) so Coventry Climax could almost claim that the flat-16 was not needed; in fact it ran into all sorts of problems during dynamometer testing, most of them associated with the central power take-off. The 32-valve V8 was clearly the fastest engine while it was running properly, but it did suffer a lot of malfunctions.

Clark's blew up (usually in practice) far more often than it won, and the one loaned to Brabham never finished a race. However, the 16-valve engine was still good enough to win three races and finish second in another two, and the firm's decision to withdraw from racing after winning 25 of the 47 1.5-litre Grands Prix left a gap which was not easily filled. (22 of these victories were achieved in Lotus chassis, two in Brabham and one in Cooper.) BRM's three 1965 wins brought their 1.5-litre wins up to eleven, but Ferrari was unable to add to his total of nine (five in 1961 and four thereafter).

Of the drivers, Clark won 19 of the 47 races, Graham Hill 10 and nobody else more than three. In 1962-65 Clark scored 19 wins in 38 starts,



Above: Carburettors, stub exhausts and all: the early BRM V8

(Phipps Photographs)

and in 24 of these races he started from pole position. (Next in order of fastest practice laps was Graham Hill with eight and Phil Hill with five — the latter all in 1961.) Wins by Moss (2) and Ireland took the Lotus-Coventry Climax total to 22, with the totals for BRM and Ferrari chassis remaining the same as for their engines (eleven and nine respectively).

For 1966 the rule-makers made a complete about-turn and increased the capacity of Formula One engines

by 100 percent to 3-litres. Once again it seemed likely that there would be a shortage of engines, so provision was hurriedly made for supercharged versions of the existing 1.5-litre engines to race alongside the new naturally-aspirated 3-litre units. It was eleven years before anyone chose to race anything other than a naturally-aspirated engine, and when they did — even though initially they were not successful — it created a furore. But this, of course, is another story. ■



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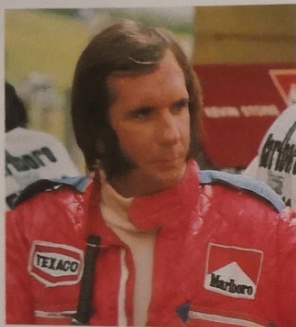
PIERRE VAN VLIET ON

Just turned 43, "Emmo" enjoyed a fantastic 1989 season in America: 15 years after his second Formula One World Championship, the Brazilian pulled off a sensational double — the Indianapolis 500 and the CART crown.

Emerson, at the start of last season did you really expect such success? In all honesty, no. I knew the Penske would be a good car. At the first official practice session, at Phoenix on the Friday, I was the quickest. Maybe a bit too quick, because on the Saturday I put the car into the wall! It was at Indianapolis that I realised we had a good package, and I could rely on a good team concentrating on one driver: Patrick Racing. Team manager Jim McGee did some excellent work, and Morris Nunn, who needs no introduction, helped me find the right settings to get the best out of the PC18. Our development work went beautifully, better than the official Penske team's on most circuits. That was a source of great satisfaction, as well as the main explanation of our success: good equipment, a good team, and... a good driver!

How do you account for such a triumph 15 years on from your last Formula One victories? Why such a gap in your career?

It's a long story. Today I have tremendous racing experience. The most important thing in top-flight sport is keeping your motivation: you have to want to win, passionately, and with a real love of the sport. It hasn't always been that way with me, but I've never been happier than I am today. When I started racing again in America, I started from scratch: it was a second, completely new life, a real renaissance.



World Champion 15 years ago: "Emmo" with 1974 hair...

Looking back, then: at the start of the 80's Fittipaldi drops out, virtually without leaving a contact address. Three years later he crops up in Miami — new life, new surroundings, even a new family...

It's true, I was a different man, a lot of things had changed, my private life included. The Americans have taught me a lot on the character side, I've learnt a great deal by living here. They still look at racing as a sport, even if it is a big business: the people are there for the fun of it in the first place, there to enjoy themselves. The atmosphere's more relaxed, people don't take themselves as seriously as they do in Europe. CART is one big family, it really is, and when they've adopted you you're proud to be a part of it. There's a completely different mentality. This happy atmosphere has helped me further my career, and the same probably holds true for the other Formula One drivers. But CART is very competitive, we bang wheels like a bunch of kids, a lot more often than in Formula One. When there's a coming together, a misunderstanding between two drivers, you talk about it, get it sorted straight away. This year it happened to me lots of times

with Little Al (Unser), and with Mario (Andretti). Once you've straightened it out, no problem!

Going back to the gap in your career, why did you give up Formula One, and why start racing again in the States?

I stopped racing in Formula One because I'd lost my motivation. My big mistake was to become a constructor and team director: I couldn't handle all that as well as the driver's role, I had too many things on my mind to be able to drive well. Keke Rosberg, whom I had taken on, was only concerned with driving. In the end we shut up shop because it just wasn't working out: our engineers hadn't got it together in the ground effect era, then turbo engines were becoming the norm. There wasn't room in Formula One any more for a team like ours.

With hindsight, any regrets? But for the Copersucar-Fittipaldi venture, your career would have taken another direction, you could have won more Grands Prix, more titles?

I was young, and the idea of a Brazilian team caught my imagination... Of course I've had regrets: with McLaren I'd have won more races, added to my personal record. Yet today, with hindsight, I'm happy to have been through that period, to have lived through those experiences. But for that I'd never have raced in America, and I wouldn't be living through what I am now. So that sojourn in the desert did me good...

How did it all happen, and how did you pick up the reins again in America?

At the end of 1981, I went back to Brazil for good. I had sold up everything in Europe, I was going back to my country to live, quite simply, and look after my business:

FITTIPALDI

WITH A LEGEND

FITTIPALDI'S RENAISSANCE

the farm, orange growing, Mercedes imports. I was a bit bored, and started racing again in Super-Karts, contesting the Brazilian championship against 17-year-olds: as an amateur, paying for my drives, you understand? I was back among three generations of friends on the circuits, it was fun. As I was going pretty well, I thought I'd have a go at a few motor races, four or five a year, just for the fun of it. I was thinking of prototypes in Europe, or IMSA in the United States. Well, then Ralph Sanchez, promoter of the Miami IMSA Grand Prix, had contacted me to take part in his

event. I had friends in Miami, I didn't resist temptation. As soon as I got into the cockpit of the March 84G "Spirit of Miami", I felt right at home! So when a little American Indy team, WIT Racing, offered me a test in one of the previous year's March cars, I said to myself, why not? I raced at Long Beach in that March 83C and finished fifth. Then Pat Patrick offered me a test drive. In August one of his drivers, Chip Ganassi, suffered a serious accident at Michigan and Pat offered me the drive, alongside Gordon Johncock. I was right back into it and after signing for Marlboro in 1985 I moved

and set up house in Miami.

Were you thinking, at that time, of the successful comeback made by Niki Lauda and the abortive one by Alan Jones?

No, not really. I never looked on my first outings in America as a real comeback. I just wanted to do a few races and enjoy myself, not at all to begin another professional career. In Indy racing I immediately realised that I was getting a great deal of pleasure from my driving, and found new motivation. All the passion was back again. I realised I had stopped too early in Europe, that I still wanted to race and win. As the



15 years on: Emmo strikes gold at the Indy 500

(Allport/Jonathan Daniel)

opportunity had arisen, I grasped it: the process was already under way. But I hadn't planned any of it, it wasn't a carefully considered process.

Now you are the big star of CART, but at the time you had to learn racing all over again. For example, tell us about your first oval track experience?

This will surprise you: it was in 1974, at Indianapolis, at the wheel of the winning McLaren which that year was in the hands of Johnny Rutherford! Teddy Mayer had offered me the chance to try it, and I went along with it. The first day, I listened to Johnny and Gordon Coppuck, the engineer. I had the good fortune to be enjoying exceptional conditions: it was the best car, and beautifully set up for Indy. Second day I bettered my times and came close to the 2000mph average. That wasn't bad, at the time, but I found those machines a bit frightening: the monocoques struck me as pretty fragile with those 4-cylinder Offenhauser engines putting out close on 1000 horsepower — it was before pop-off valves! To cut a long story short, I didn't accept Teddy's offer. And who's going to be in charge of my Penske next year at Indianapolis? Teddy Mayer! Small world, isn't it?

When did you first feel you could win on an oval track?

After three years. It's a very different feeling, but it's enjoyable, very quick: you have got to adopt a very precise technique, drive smoothly, don't fall into the trap of taking a tow... It's interesting. For a couple of years now I think I have mastered the art of speedway driving but in races the Americans still have faster reactions where strategy is concerned: in a pace car or yellow flag situation they react at once. I haven't yet acquired those reflexes... At Indy, this year, each time the yellow flag came out, I lost time. On that level I suppose I am short of experience!

Yet you won the Indianapolis 500: quite an experience! How did you see those last five laps?

It was dramatic, unbelievable! I had gone into the lead on the first turn, led almost the whole race in commanding fashion and four laps from the end it was all being taken away from me: a real nightmare, I just couldn't believe it. In fact, to grasp why Al Unser Jr. was quicker than me, you have to go back to the last pace car, 22 laps from the end:

Mo Nunn had worked out we had to put in 17 gallons, that would do. But Pat Patrick was very nervous and insisted on filling it up, just to be on the safe side. Instead of the 220 I'd been averaging on the previous laps, I was doing 214 on full tanks: it was quick, we had the best settings on full tanks, but Little Al was empty and he was catching me because he could easily lap at 219. I saw him coming in my mirrors and couldn't do a thing. Four laps from the finish, not even that, it was just too stupid! You have to understand that to win the 500 is more important than the title, it's the be-all and end-all out there. I was sick! Then I saw the traffic in front of him, two slower cars: he had to lift off in turn two, before the long back straight. I took the bit between my teeth, taking advantage of the tow, at around 400 km/h! There were two laps left and I went into turn three just about up with him. But I was too low on the banking, it was the wrong line: I kept my foot in it and the car slid towards his. He knew I was there and there was a chance we would touch. Neither he nor I wanted that, you don't bang wheels at that speed, but it was a risk we were

both having to take. Well, we did touch, and the gods were on my side. I won and no-one called the victory into question because I deserved it, that's all there was to it.

That manoeuvre smacked of desperation... a bit like Senna's with Prost in the Suzuka chicane. What did you think of that?

I have the utmost respect for both men and I'd have acted in the same way if I had been in their place: I mean in Ayrton's place I'd have behaved the same way, in Alain's, same thing! That happens in racing: on the second last lap at Indy, it was the same thing between Al Unser Jr. and me — with the slight difference that we were doing 350 km/h at the time we came together! I took risks last year, I was often driving on the limit. But nothing venture, nothing gain...

Do you know Senna well?

He's from Sao Paulo, like me. I'd already heard of him in karting circles. When he came to England to race in Formula Ford, I took him to a Grand Prix — Austria, I think. I introduced him to the team managers, telling them, "He is going to be World Champion". They all answered: "You say the same thing

about every Brazilian that comes over here, Emerson..." Ayrton is a fantastic driver, with immense natural talent. He came to us in Florida between Mexico and Phoenix, just after my Indy victory. I found he had matured.

He is very professional, a perfectionist, motivated. I'm sad about what happened at the season's end, the whole carry-on: Ayrton deserved better than that. I think Formula One should follow CART's lead where the regulations are concerned: in Indy racing, that sort of incident couldn't happen because the rules are crystal clear. For example: when a car has a spin and is stopped, with its engine stalled, then whatever its position (dangerous or not), the marshalls are obliged to push it so that it can rejoin the race. No question of exclusion or penalty, because the driver has already lost enough time in his spin. At least this means there are more cars on the track, more cars at the finish, it's all good for the show!

Any other examples?

Take the line that marks the entry to the pit lane. It seems Ayrton went over it in his manoeuvre with Prost in Japan. If that happens with us, Race Control comes down at once and the mistake is punished with a "stop and go" penalty, i.e. a mandatory stop in the next two laps with immediate return to the track. No disqualification, no protest, no arguments, no tribunal: just sport, spectacle, nothing else. That's CART's secret.

Formula One people in general are rather arrogant towards CART and Bernie Ecclestone tends to goad you regularly: what does that do for you?

It makes me laugh! People who criticise CART do not know it and they can't stand the fact that Formula One can't get a foothold in the States. At the other end of the scale, Indy racing doesn't concern itself with Formula One: Formula One is Formula One, on the international level, no-one questions that fact. It's just that in America Formula One as a spectacle looks pretty feeble to Indy spectators and since Formula One doesn't interest the Americans there are no Americans in Formula One... It's a vicious circle. Formula One has a lot of technical tradition in Europe whereas for CART the priority is in the spectacle. This season there are decent cameras at last on the Formula One cars, but for years

now no expense has been spared for television where CART is concerned. It's a question of different attitudes, again. As for the arrogant ones, let them come and look: Indy racing is very competitive, much closer than Formula One, and driving has a major part to play in the results. With a good car, Teo Fabi managed pole positions in Formula One and in Indy racing. The problem is that there are two, maximum six good cars in Formula One, while in our Formula there are a good dozen. From a driver's point of view it is more worthwhile, less frustrating.

Which was more important for you: the Formula One World Championship or the Indy 500?

In sporting terms they are equally important to me. The difference lies in the way you relish the success, and I make no secret of the fact that I got more satisfaction out of winning the Indy than the world title at the time. Simply because at that time, I was too young really to grasp it all, and I was under too much pressure to benefit from it. Today I really explode, and I feel intense happiness when I win. I don't think that I have ever driven as well as last year, because I am taking full advantage of my experience.

Can you see yourself racing much longer?

A lot longer! When you're enjoying yourself, as is the case in CART, and you're competitive, it's easy to stay motivated. The best example I can offer is Mario Andretti: he's just signed for two more years with Carl Haas and he's over 50. I hope to be here in another 10 years, why shouldn't I?

What's your lifestyle like in the States?

There too, it's very different from today's Formula One. A lot less stressful. We have 16 races and quite a lot of private testing, but moving around in the United States is ultra-quick, very easy. In Miami I can look after my business and my

family. Three of my four children live with me, I have an offshore boat and we live by the sea on Miami Beach. I've set up Fittipaldi Automotive, to distribute Italian made steering wheels and wheel rims: it's an excellent business, going very well. I also have agreements with Hugo Boss clothing, for whom I am the Brazilian importer. At one and the same time I can look after business, my family and my racing with no strain. In Formula One these days that's not possible. That's another reason I'm glad to be here, to have the chance to know all these things, this happy balance in my way of living. It's important in a man's life. And then, in the States, money isn't a taboo subject, and you don't need to hide in Switzerland or Monaco!

Speaking of which, will the crop of dollars be as bountiful in 1990? Three top drivers in the same team will be a bit of a change for you...

I hope to beat the prize money record, but I must admit it'll be hard. For me 1989 was an extraordinary year from every point of view! My move to Penske Racing comes about because my loyal sponsors Marlboro want to link up with that team. With Rick Mears and Danny Sullivan, we'll make a tough trio, that's obvious. But the competition will also be tough, with the Lola-Chevies of Newman-Haas (the Andrettis) and Kraco-Galles (Unser Jr. and Rahal), and the Porsches, even the Alfa-Romeo. The championship will be wide open, and I have faith in Roger Penske's legendary organisational skills. In fact we'll be racing a stable of three distinct teams, each with its independent structure. I know Danny and Rick well, we all respect one another and the new Penske PC19 is very promising.

Any wishes you'd like to pass on?

To your readers? I'd like them to be able to come to a CART race. Indy racing has no real desire to export itself, but there are plans afoot in Australia, in Japan and at home in Brazil. Why not a race in Europe? Even build an oval track, that would be good. FISA? They can't ignore us. CART doesn't want to trample on Formula One's territory, but Indy racing deserves international recognition. We already do well in exporting telecasts of our races, why not the races themselves? One a year on every continent, and ten in North America: that way the balance with Formula One would be kept. There you are! ■



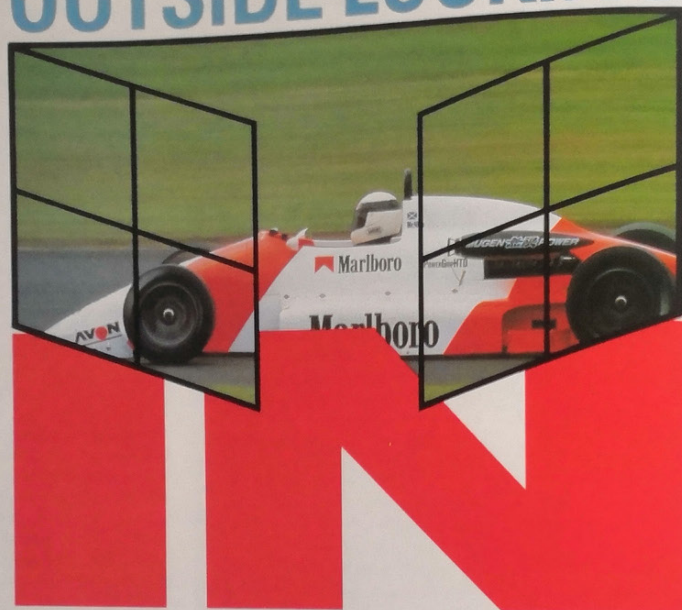
Above: Emerson en route to second place in the 1974 British Grand Prix for McLaren
Opposite: Fittipaldi's first world title year: at the 1972 Race of Champions in his Lotus 56

(Alipori)



(Alipori)

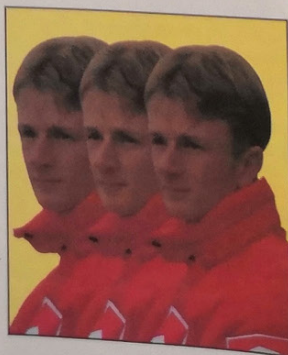
OUTSIDE LOOKING



(Allison/Pascal Rondeau)

ALLAN McNISH

"Two laps to go and I was lying second as I came back over the start and finish line and up the slight incline towards the chicane. The leader pulled over to hold the inside — I went outside and would have won the corner, no problem, but for some reason I went straight on. I didn't turn the wheel. I slowed down, waited for him to come through and rejoined. A lap later I executed the manoeuvre and I won the race but, subsequently I was disqualified. I'm still mystified. I don't know why I did it. I have never been able to fathom out why I didn't turn that wheel."



BY ANDY SMITH

Allan McNish, just 20, analyses each performance with a professional thoroughness rare in a driver so youthful. It is a throwback to those Karting days not all that long ago; in 1985 at Rowrah in Cumbria McNish had won the first two heats and the third was vital in the Super

One championship. Then aged 15, McNish was taught the value of studying each race. Incredibly for a teenager, albeit a champion Kart driver, four years later he was at the wheel of the world's premier Formula One racing

car — the Marlboro McLaren Honda at a test session at Estoril in Portugal.

The chance came for McNish last November, courtesy of his major sponsors, Marlboro, and McLaren themselves. "They all seemed to think it was a good idea and who was I to argue?"

A month after the session, McNish was still bubbling with enthusiasm about it all. "It was a tremendously enjoyable experience. Ron Dennis and Ayrton Senna and all the team were there. I don't think I've ever experienced anything like it before. It is probably one of the most exciting experiences of my career; if not THE most exciting."

Formula One beckons for Master McNish, but he's aware that his career is still only just beginning. "Definitely at the beginning you realise when you get into a Formula One or Formula 3000 car — you still have a long way to go. Every day you drive one of those cars you learn something, something new

comes along, so of course it's an advantage to be young, there's more learning time. Just a week or so ago I was 20. They can't say 'McNish is a teenager' anymore which might be useful!

McNish, built like a flat race jockey with some of the quick wit and ready smile of Willie Carson, would be an asset in the Formula One paddock. A quiet, level-headed sort, not over impressed with his own meteoric rise through the junior ranks, but not without a sense of pride in his achievements so far. He is a product of a Scottish middle class background, his father Bert is a BMW dealer in the border town of Dumfries. Always intensely interested in anything with wheels and an engine, Bert encouraged Allan along the same lines, though initially at least, the young McNish's interests were channelled in a slightly different direction.

Motor cycle scrambling was the main attraction for the junior school version; but, at nine, he says, he was "very small and not very strong. A recipe for disaster really and I had my fair share of spills. It wasn't what I wanted to do anyway, and at 11 years of age, I found Karts were my thing."

St Joseph's College proved to be the ideal educational establishment for the young McNish. "Karting began to take me away a lot, but they understood me racing. As long as I caught up with my schoolwork they were not all that concerned about the time I took off."

McNish was lucky. Other youngsters without his background would have given up the sport, frustrated by the lack of opportunity to race, a product of lack of cash and lack of parental and school encouragement. For McNish the ingredients were all there; combined with his own ability they produced a champion. McNish has his own theories about the middle class background being an advantage — "It was helpful in Karts at an early age. I can't deny that my parents had some money which made it easier initially but I was sponsored after my first year by people that my father did business with, finance companies, Hogg Robinson and so forth, so the main contribution my parents made after that was to be dedicated and encourage me to take part. The background wasn't all that much of an advantage when I started out because I think that if you want to be a World Champion or to just do something to the best of your ability,



you'll get through the difficult times." It is always refreshing to meet a young champion who is not self-centred. "I'm reading Nigel Mansell's book at the moment. Now he had huge financial problems at the beginning of his career. I can truthfully say that I have never experienced anything like that, and I'm very fortunate that I haven't."

"I look at Formula One and I think it's impossible to understand what it is all about until I've done it..."

"I look at Formula One and I think it's impossible to understand what it is all about until I've done it..."

At Estoril, McNish learnt a little of what it is like. "Totally different from what I'd anticipated, I didn't have a clue what to expect. I remember jumping into a Formula 3000 car and putting the foot down and it just seemed to go down the straight like a rocket! Up through

the gears, the whole thing shaking and vibrating. I thought that maybe the Formula One car would be worse, much worse. But no. It was so smooth. Everything, the engine, the power application, the chassis: everything was beautiful but it was so different. Just two things came into my line of thinking. One, that I was in the best Formula One car on the circuit, the ultimate. And two, that my neck was very sore because of all the G force."

High on the nose of his West Surrey Ralt-Mugen in last year's British Formula Three championship, McNish proudly carried the cross of St. Andrew on the Ecurie Ecosse badge. Even though his most famous predecessor, Jim Clark, was killed before McNish was born, he is aware of his place in motor racing history. Jackie Stewart and Emerson Fittipaldi were at the end of their careers when McNish was still very young; he regards them as having aroused the flicker of interest that came to life for him in the late Seventies and early Eighties through the personalities of James Hunt, Mario Andretti, Alan Jones and Keke Rosberg.

"I've met most of those characters now and they are very different from the people I thought I saw when I was younger. I work quite closely with James Hunt through our connections with Marlboro. Alan Jones and I met for the first time at

Macau, Jackie Stewart I've known a while. They are all very different characters but with one common factor — they all have very strong personalities. I expected to find them a bit blinkered, dedicated, definitely with very firm views of what they want. They have all of that, certainly, but they also have a very pleasant social side to them too, which I didn't expect."

McNish and Paul Stewart are now good friends, the two Scots having met for the first time in Formula Ford 1600 in 1987. "Paul really is a nice guy but oh my goodness the number of times I've shut my eyes and thought 'is that Paul or Jackie talking?' He sounds the same, he says the same things, acts the same: Jackie Junior, he really is." There is an immense regard for the Stewarts, who even though they have their own concerns in motor racing have never failed to give McNish advice or encouragement. "Jackie's been good to me from the word 'go'. Of course being Scottish helped I'm sure but whenever there's been a point when I've needed to speak about anything, he's been there. A very pleasant man, the whole family's been good to me."

McNish is generous in his praise of the Stewart achievements. Justifiably so. Paul never had McNish's experience of Karting, just a season under Jim Russell's schooling. Driving cars quickly came naturally, race craft is a matter of experience. McNish followed the path plotted by Prost, Mansell and Senna. "But if you think I've had a meteoric career so far then think of Paul! 1987 — Junior 1600, 1988 — Formula Ford 2000, 1989 — Formula Three. He's had no more than 35 races in all and won one Formula Three race. I don't think anyone has competed in so few races in total and won in Formula Three. Then there's his team. 1988 Formula Ford 2000, 1989 they race two Formula Three cars, in 1990 the plan I believe is for two Formula 3000 cars, two in Formula Three and two in the Vauxhall Lotus Championship. Meteoric and impressive!"

And probably not far away from a Formula One entry with McNish in the cockpit?

Certainly McNish is in the Stewart mould. Scottish — which helps; determined — that's essential; a good sensible talker — useful; successful so far — a distinct advantage.

A year to the day that he started Karting he won the Scottish Champ-



Previous Page: McNish on a charge in his aggressive assault on the Formula Three crown. Above: Lucas Formula Three event at Silverstone, a style all of his own.

ionship at 12 years of age. A title he now regards as the most important of all since it started the ball rolling as he went on to a supreme Kart career — four titles in the same year, 1983, including the British. The apprenticeship learned, Formula Ford 1600 came next in 1987. At 17 McNish impressed everyone from mid season onwards — including Jackie Stewart, watching son Paul at Snetterton, a race which McNish won in style. One third of the way through the season, the team changed their Van Diemen RF86 for a new one, transforming the spirit and competitiveness of the driver as he won eight races to claim second place in one championship and third in another.

1988? "That was Vauxhall Lotus — won that". McNish ticks off his string of titles as though he is transputting. At the end of 1987, Marlboro, "people I'd only heard of on the side of Formula One cars", had asked him to take part in a test and then offered him a drive in the inaugural year of British and European Vauxhall Lotus Championship. It was completed successfully — first in the British and third in the European, so McNish moved on upwards again — to Formula Three last year. That he ended the year with more points than anyone else is history. Whether he will retain enough points to be champion after protests and counter protests have been heard remains to be seen, but it was still a classic effort in a Formula where comparisons with a dog pack are frequent.

With five wins, four of them on the track in the middle of the season, McNish was only troubled at the start of the year when he rolled at Brands Hatch in the third race of the season and was forced to miss the next at Silverstone on doctor's orders. But the most prestigious race of the year — before Saturday's Grand Prix crowd at Silverstone — signalled the start of serious conf-

usion when both first placed (McNish) and second placed (David Brabham) were excluded for illegalities in the engine department. The matter is settled as far as McNish is concerned. "I know that I may not be the British Formula Three Champion, but I know that I did the best job possible last year and that's all I need to know."

McNish in this rapid rise to the top has not proved to be the most popular chap in the paddock with reporters covering the various junior Formulas. 'Cocksure and aloof' wrote one 'just like Senna'. A harsh judgement that: he takes his racing seriously, after all there are bills to pay on the new place in Beaconsfield (a one-bedroomed flat, incidentally, hardly Monaco) and the faith of others to justify.

Success has been swift for McNish, four different Formulae in four years, but 'this is the big step, Formula 3 to Formula 3000. Could be an even bigger one into Formula One soon but it's better not to rush into it. Two, three or four years maybe doing the best job possible and learning as much as I can. Marlboro have carried me through to where I am so far. I've been lucky. Theirs is a tremendous scheme, picking up a driver in the junior ranks and taking him through to Formula One, that's their ultimate aim.' And the ultimate aim for McNish too. Then the young Scot will perhaps sit in his Monaco pad, ambition fulfilled. But there might be a grouse or two about the cost. After all he is Scottish. 'Coming down South from Scotland it was very different, looking initially for a place. In Scotland I could have bought a really nice one bedroomed flat for about £23,000. Down here it's £65,000 plus!

The good thing about Beaconsfield is that it is only 2½ hours home to Dumfries door to door via Heathrow. Monte Carlo might take a little longer, but it may be sooner than many critics think. ■

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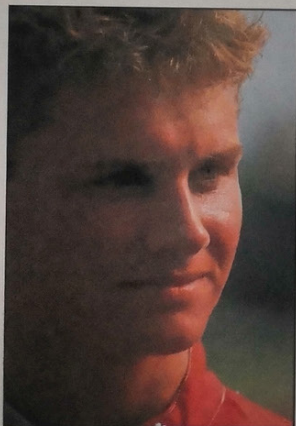
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DE JA VU ANOTHER SCOTTISH UPRISING



by Graham Gauld

The announcement last month that Allan McNish had won the Autosport/McLaren readers poll as National driver of the year and that David Coulthard had won the Club driver of the year category set me thinking back nearly thirty years when another two young Scots were catching the headlines: Jim Clark and Jackie Stewart.

As a Grand Prix magazine it is possible that some readers may not know anything about McNish and Coulthard but there is little doubt that they are likely to hear more about them in the future. At 20 years of age Allan McNish is almost a veteran as this year he enters his fourth season of motor racing having gone from Formula Ford Junior to British and European F3000 racing in that short space of time. McNish has two things going for him. Firstly he has tremendous talent, noticed very early in his career by Jackie Stewart. In McNish's first season Jackie Stewart's son Paul was also in his first season of racing and naturally as fellow Scots there was a mutual interest. One day at Snetterton Bert McNish, Allan's father, decided to enter his son in the Senior Formula Ford race to see how he would get on. He mentioned this to Jackie who said that he thought Allan could win the race even though he had only been racing in the Junior Championship up to that time. Of course McNish went out and won the race and was protested by the regular competitors but the car proved to be legal. From then on Allan McNish was clearly a man to watch.

In the 1988 season he moved into the then-new Formula Vauxhall Lotus and won the British title and in 1989 he moved into Formula 3 and again won the British title impressing a lot of people, none more so than Ron Dennis. Dennis took McNish to Estoril in November and put him in a Formula One McLaren the same day as Ayrton Senna was testing. McNish's times were impressive and as a result McLaren International have now signed up McNish on a contract which guarantees his backing alongside Marlboro in F3000 this season but clearly eases his path into the McLaren Formula One team if he shapes up.

McNish's second advantage is that he is a promotional natural. Even at the age of 18 he could stand up in front of journalists or businessmen and articulate. He is always impeccably dressed, is polite and can work

a room better than most.

If there is a third advantage it is that he is very small. Indeed, I was told that when he met Alain Prost for the first time at a Marlboro affair Prost said to him that he never realised there was a racing driver smaller than he was.

David Coulthard is even less known internationally as he has just completed his first season in motor racing. Like McNish he chose Formula Ford Junior and won both British Championships in 1989.

This year his plans have not been finalised but it is almost certain to be Formula Vauxhall Lotus and it is likely to be with Paul Stewart Racing. As a team owner now, Jackie Stewart has shown considerable interest in Coulthard and clearly wants to take him under his wing. Again Coulthard is outward going, highly talented and even at the tender age of 18 has shown that he is a calculated driver who works out all the options before making his move. He is temperamentally closer to Jim Clark whereas McNish is closer to Jackie Stewart. Coulthard is taller and I was surprised recently when he admitted that he was concerned about his height and how it may be a handicap for getting into Formula One! I think I must be getting old when I can't conceive of 18 year olds calmly concerning themselves with Formula One when they should be thinking about girls and acne. Even in those departments he seems to have no problem with either. Talented kid with a big future.

Around thirty years ago we were all looking at Jim Clark, signed by Aston Martin for Formula One but never to race one, and Jackie Stewart, about to explode upon the scene with a little Marcos. Two Scots who, without knowing it at the time, were about to re-write the record books in Grand Prix racing for the following 13 years sharing five World Championships between them. Now we have another two Scots who could well do the same and if one has the touch of Ron Dennis behind him and the other the touch of Jackie Stewart then the signs and portents are there for all to see.

FATAL FOOTNOTE

It is commonplace nowadays to comment on how much safer Grand Prix cars are today than yesterday and you could be forgiven for thinking that Grand Prix racing in the fifties and sixties was one long trail of fatal carnage.

I was checking some facts in my

library recently and came across an interesting table which Denis Jenkinson, the well respected Grand Prix correspondent for Motor Sport for at least forty years, prepared as an appendix to one of his books on the 2 1/2 litre Formula One of 1954-60.

In this table he listed all the drivers who had competed in Formula One during that period who had either died or been involved in fatal accidents. There were twenty six names listed but when you begin to analyse these you find out that only five of them were actually killed when competing in a Grand Prix; Chris Bristow, Peter Collins, Stuart Lewis-Evans, Alan Stacey and Luigi Musso. What is interesting is that four of these were British drivers, two of them in the same race (Bristow and Stacey in the 1960 Belgian Grand Prix) which perhaps explains why the death of racing drivers became such headline news in those days and almost a preoccupation since.

To return to my opening paragraph, it is undoubtedly true that modern Grand Prix cars are extremely safe, to a degree that would have been inconceivable back in the 1950's. What is truly remarkable is that only five drivers were killed in Grand Prix races over that seven year period bearing in mind the fragility of the cars and how the era saw the first steps into what was then the unknown in terms of handling, downforce, tyre technology and suspension systems.

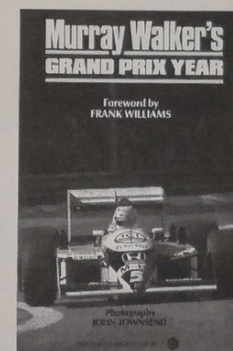
Ironically of the five drivers killed in that period none of them could have been related to a technical problem. Bristow, Musso, Collins and Lewis-Evans were killed driving at their absolute limits and losing out and Stacey lost control when hit in the face by a bird.

Of the rest, eight were killed in sports cars, (including De Portago, Ascari, Behra, Scott-Brown and Wharton), two were killed in minor races, three in Formula Two, one in testing (Castelotti) two in practice (Schell and Marimon), one in a motorcycle race (Keith Campbell), one in a road accident (Hawthorn), two in rallies and one through illness in bed (Claes).

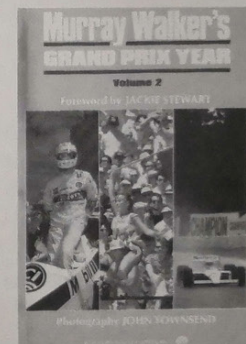
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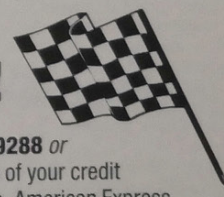


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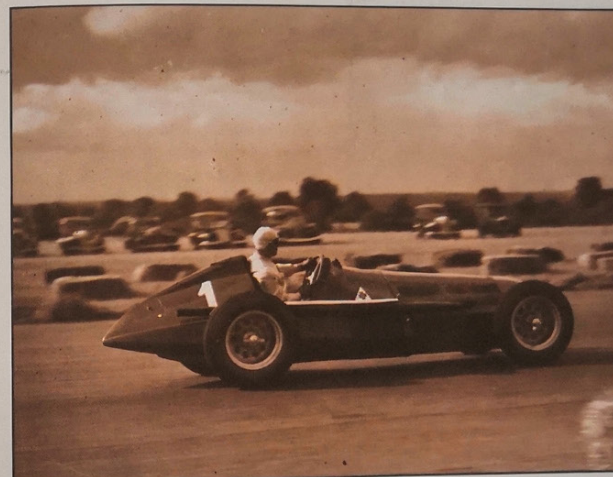
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FORMULA ONE AT 40

BY GRAHAM GAULD



Farina straight-arming his Alfa Romeo 158/9 at Silverstone

Graham Gould

Had you been a motor racing enthusiast forty years ago, you would have opened your copy of Motor Sport magazine and read of the prospects for a new competition called the World Championship for Drivers which had been announced by the Federation Internationale de L'Automobile: for it is forty years this year since the World Championship crown was introduced.

Before the war there had been a number of Championships, the first of these being introduced in the mid-1920's by the Association Internationale des Automobile Clubs Reconnus, the precursor of the FIA. This, however, was a manufacturers' Championship contested by all the various teams competing in the European Grand Prix but it was not to last long as the depression of 1929 loomed and it was a further fifteen years before the European Championship for Drivers was introduced in 1934. Until the war only three drivers won the title and not surprisingly they all drove for either Mercedes Benz or Auto Union teams

and were all German; Rudi Caracciola, Bernd Rosemeyer and Hermann Lang. It is ironic therefore that in the forty years of the World Drivers' Championship it has never been won by a German driver!

After the war many things changed even though control of motor sport remained in France. The original AIACR was disbanded in 1947 and replaced by the FIA which exists to this day and two years later they decided that a new Drivers' Championship should be formed but as at least one of the Grand Prix races was in Argentina rather than being a European Championship as before it should become a World Championship. Almost as an afterthought they decided to broaden it even further and include the Indianapolis 500 in the World Championship.

So 1950 became the first year of the Grand Prix World Championship with just seven qualifying events, the first one, the British Grand Prix at Silverstone in May of that year. Compared with today drivers had

to compete in roughly a third of the number of races so that comparisons of driving skills based on outright victories are ridiculous as a modern Grand Prix driver has three times the number of races in which to score per season. The first World Champion, Giuseppe (Nino) Farina, was an enigmatic character now almost totally forgotten. In that first year of 1950 he was already a veteran driver of 44 or seven years older than Nelson Piquet, the oldest of the current Grand Prix drivers.

Born in October 1906 he became an accomplished skier, football player, athlete and cyclist and though he was always called Dr. Farina during his racing his doctorate was not in engineering, as you might have been imagining, but in Political Science. The man who put him on the right course was the legendary Tazio Nuvolari and he was to join Alfa Romeo driving the 158 Alfettas. Though he also drove for Maserati and Ferrari he is remembered mainly at Alfa Romeo with whom he won the first World Championship in 1950.

There are one or two similarities between Farina and Ayrton Senna in that Farina didn't really like publicity and even when World Champion refused to have any pictures taken of him at home and guarded his private life. Mind you it was much easier then than now.

He is also remembered by drivers like Stirling Moss as being the man who created the modern straight arm driving style at a time when most drivers sat with their bodies about six inches from the steering wheel, the better to flex muscles and wrestle with heavy cars.

He attempted Indianapolis for the first time when he was 50 years of age with an American Kurtis Kraft chassis and a Ferrari sports car engine but it just didn't have the pace and a year later he might have competed with a conventional Indy car but for the fact it was crashed by the American reserve driver who was killed.

Ten years later at the age of 60, Farina was driving his Lotus Cortina over the Alps to see the French Grand Prix when he simply lost control, hit a tree and was killed.

In forty years the World Championship has changed and I wonder how many people this year will remember the shy and smiling Dr. Farina, the first of forty years of World motor racing Champions.

COMPREHENSIVE COVER

BY STUART SYKES

When Philippe Streiff had his appalling 1989 accident, he may have had problems with his national insurers - but not with TIM CLOWES, the man whose policies cover the majority of Formula One's household names. Thanks to Tender Loving Care, as Tim's logo goes, a very large sum of money indeed will be helping the Streiffs' rebuilding process. Now 57, Londoner Tim has been a broker for 35 years and is one of the best-known faces in motor racing. Time for him to tell his own story...

"Always been an enthusiast, I suppose, even before I was an insurance broker. So, the first Grand Prix was about 1950 in Monaco because I was working down the road as a nursery gardener in those days. I went into town to play tennis and found the streets blocked and so I stayed and watched the Grand Prix, which in those days was a good deal more informal! I even got into the paddock, you know, without a pass.

Then I became an insurance broker and about 25 years ago we had a small firm specialising in insuring aircraft. And we tended to do the more lunatic aircraft; small aircraft in the U.K. which of course brought us into touch with those racing drivers and teams which ran their own. And one or two of them said to me, "You insure the aircraft, can't you insure the race cars? And can't you insure us?" Because there was no personal insurance of any sort, and so we looked about a bit, and in those days the maximum package we could put together for a driver was - I remember it well - £30,000 for permanent disability, £300 a week - which a Formula One driver today wouldn't think much of! - and 3,000 medical expenses. The package cost about £500.00 I think, which they thought was a heck of a lot of money and they were all perfectly happy with that as the amount of insurance they got.



Tricky if you get the hands wrong...

"Certain cars are more likely to fall to pieces than others..."

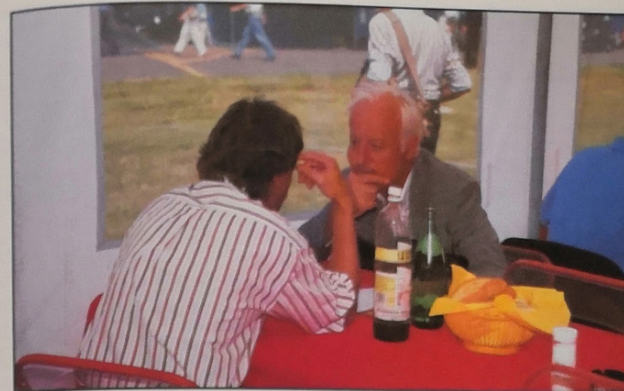
TC-A1 at Lloyd's



Around about the same time a driver, whose name I simply cannot remember, said that he had been offered to go down and do the Tasman Series, but if he got there and had an accident in the first race he would be in trouble. Could we insure the car on the track? Lloyds had always said they could insure anything, so I went down into the market and I chatted to one or two people and I remember they did not go over the top, I got about 10 underwriters to write £100 each on the car. That was the first on-track that was ever done and he came back from the Tasman Series and, God bless him, whoever he was, he hadn't had a scratch on the car the whole time. So he asked if I would pay him the money back!

Then I thought I had better start going to the races a bit more, so I started to travel with some of the teams to the races and realised that because of the temperament of the racing teams in those days they were actually all totally uninsured. They had the minimum cover on their trucks, they had nothing on their workshops, nothing on their mechanics, so we started to put together a little sort of package. Basically we gave them a motor traders' policy, because after all what are they, a high-class engineering business really. They are a very good risk from that point of view. So we do a motor traders' which covers the works and so on, and we have an all-risks annual policy for all the goods which they take out and about in the world, wherever they may be the whole time. Of course it has grown from the top team having a sum insured of about £100,000. Now the top teams' total sum insured is approaching a Million Pounds on average.

By and large the rates for each particular class of racing, Formula One, F3000, Formula 3 are more or less the same. There are some drivers



At the negotiating table, here with Mr. Berger (John Townsend)

which my underwriter knows and I know are comparatively safer than the next one, but on the other hand it isn't the driver that you're insuring that is causing you the problems, it's the loonies on the track, and it is an unfortunate fact of life that the loonies on the track who cause the accidents actually tend to come out unscathed and hurt other people. The person who nudges the car in front nearly always just drives through the space where the car has been and the other bloke's in the armco. And so we very rarely, really, charge different rates for different drivers in the same class of racing. And the funny thing is, time does not seem to make a lot of difference. We haven't really had to alter the rates very much over the last 4-5 years. I have just persuaded my underwriter that because the cars and tracks are so much safer we should knock a little bit off the death rate because I think you would agree that the cars are basically safer.

Certain cars are more likely to fall to pieces than others in my opinion; some of them when they do hit the armco do not react as well as others. Some of the cars are so well built that maybe it even slows them down. Some of them have cut a few corners. One wonders whether it is the same car on the track as the one that had the crash test... But all in all it evens itself out.

As far as the drivers are concerned in Formula One we do about 80% of them. Whether the other 20% are insured I do not know. I do not do all the Italians... There are slight problems in one or two countries also. According to the law you are meant to be insured through a local company and so on. That does not worry most of the teams and drivers, and they have external funds anyway.

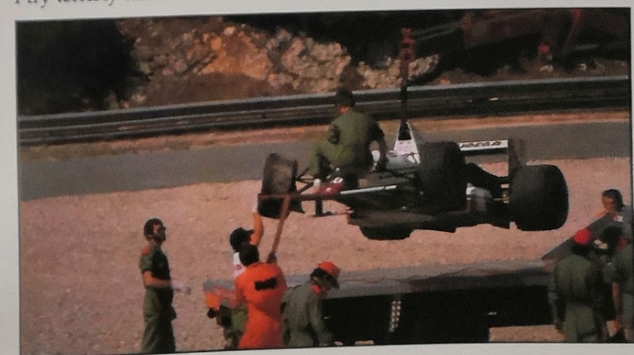
Hopefully that will all go in 1992. So we do 80% of the drivers, two-thirds of the teams for the basic policies and then we go down and do Group C in the same proportion to the number of teams. In fact of the Group C drivers we have got virtually all. I would think. Now it is spread so that we do two-thirds of the CART drivers, IMSA drivers and NASCAR drivers as well. They, strangely, are not so insurance-orientated. The only CART drivers who carry really big policies are those who have been educated, dare I say it, by me as to what they should be insured for. So people like Emerson, Guerrero and the ones who have driven in Europe carry quite big policies, but the people like the Andretti's actually carry remarkably small policies.

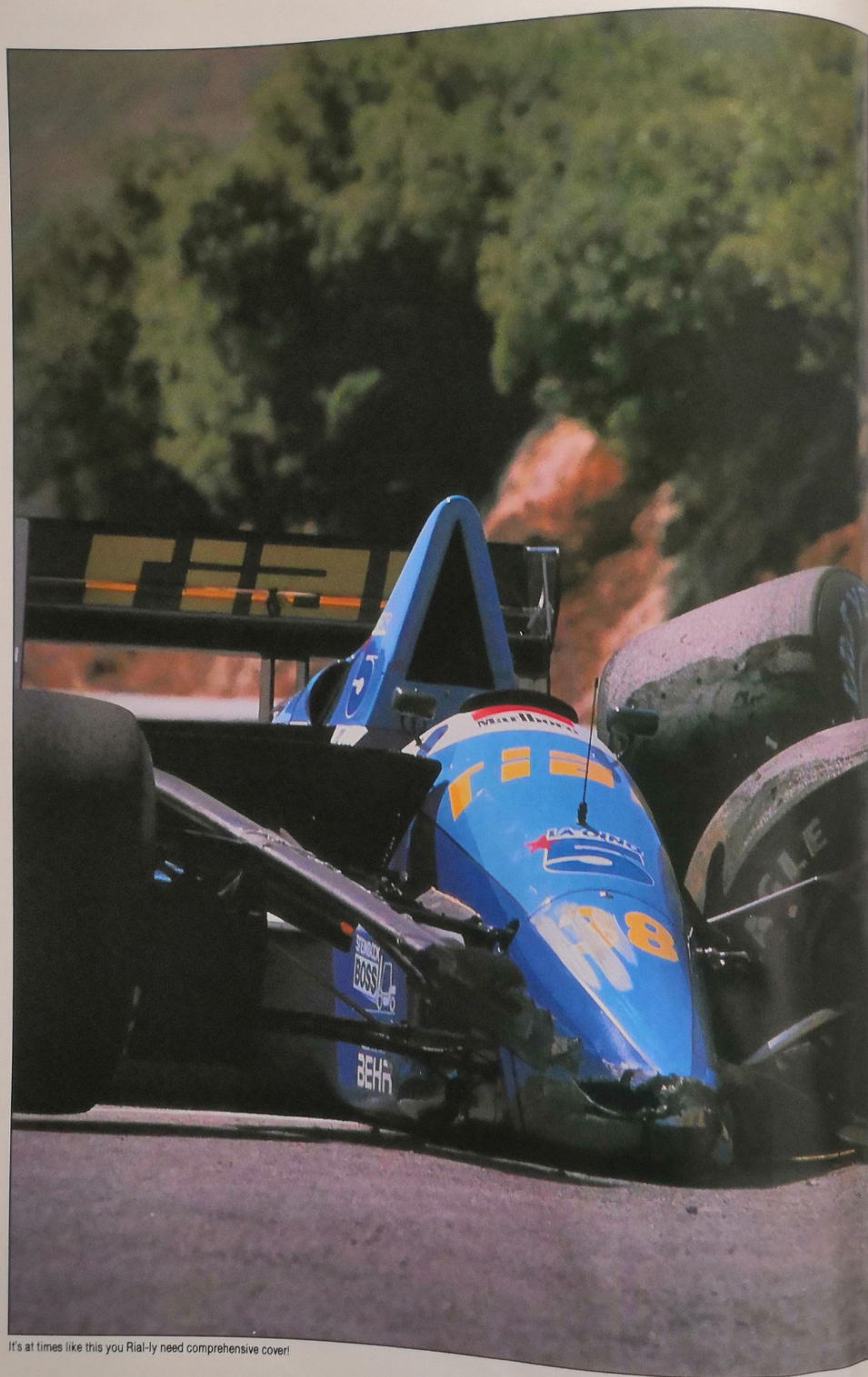
I have always tried to be friendly and helpful to people when they start. I try and see who I think is going to be any good. The word gets about in places like Brazil, so that when the youngsters come over from Brazil they sometimes tend to come and look for 'Uncle Tim', who will give them bit of unbiased information which is the reason why now I try terribly hard not to be associ-

ated with a single team. I can only obtain my business by talking to the drivers and pointing out in some instances, in the politest possible way, that they have some small obligation to me as I might have helped them some years ago, and if you look around you will see that most of them say thank you very much. I do not put a lot of money back compared to what a major sponsor does, but I don't have a lot of money to put back! We spend a good many tens of thousands a year anyway. I am more than an insurance broker and everybody remembers that, and this is why we get the business. One or two of the drivers, less now than they used to, think "Oh well, if I knew him when I was in F1600 I ought to know somebody more important now that I am in Formula One". And then there are one or two of these financial predators-cum-consultants, who think, "Well now he is worth a lot of money we will step in and look after his financial affairs." They do not do it particularly well, but they are banking on someone who is really a success story, and I do on occasions get a bit 'narked'.

But there are little spin-offs, whether it is Ecclestone's aircraft, or whether it is all the photographers who go there and everybody's houses and cars, and then of course there are the track insurances as well. For some reason nobody seems to like me in the U.K. so I don't do Silverstone or Brands Hatch, whereas I do all of Australia, Japan and a lot of America; I do everything in the U.K. outside Silverstone and Brands. I think they consider me a sort of a maverick. Mind you I will do things for Brands, like their aeroplanes, and their racing schools and so on. For some reason the 'old boy network' doesn't actually extend to the track!

Who picks up the tab when the other guy's in the armco?





It's at times like this you Rial-ly need comprehensive cover!

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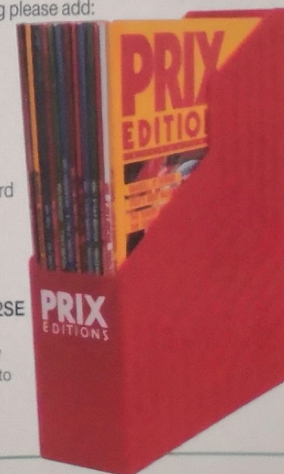
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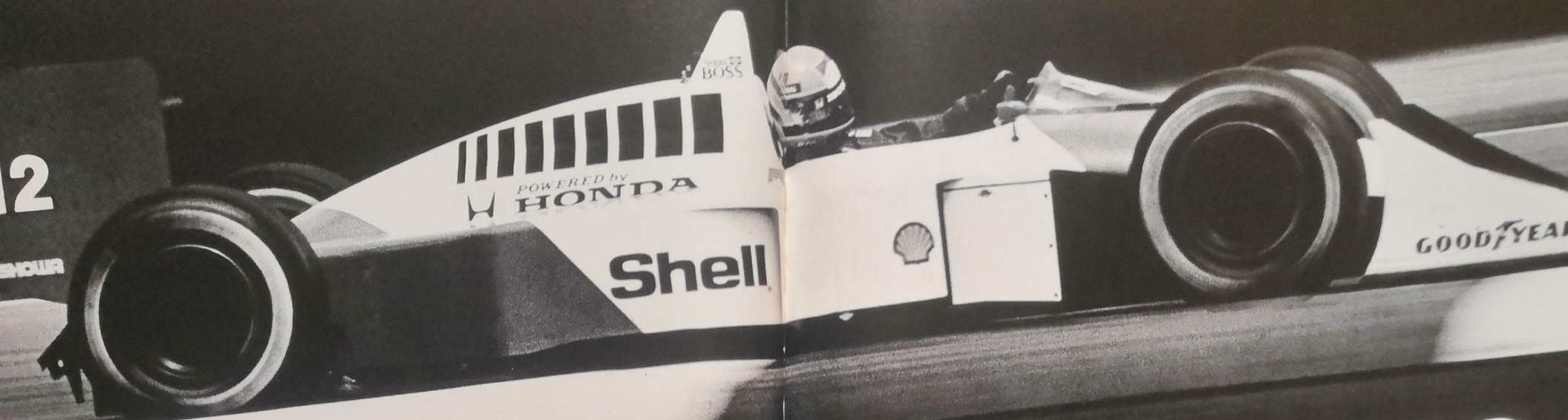
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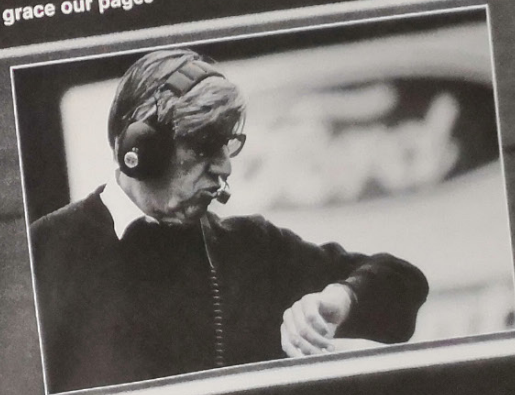
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MONOCHROME MAGIC

It may seem perverse to combine the world's most colourful sport with black-and-white pictures, but Matthias Schneider's work reveals the depth, the range of tones and the striking compositions monochrome photography can achieve. His studies of Ayrton Senna at Silverstone in 1988, Emanuele Pirro, a tyre temperature test and the unmistakable features of Ken Tyrrell are the first selection of Schneider's work to feature in Prix Editions International: his photographs will grace our pages



FORMULA FUN

MODEL PITSTOP

This is the first in a new regular series of features aimed at the Formula One modeller. Allen Syms of Just Cars Anyway will be highlighting the latest and best in scale model kits, all of them available from his company, (see separate advert). Tools at the ready? Here we go!

The past few years have seen the number of models available to the enthusiast almost double. Most of the up-to-date kits on the market today originate from car-crazy Italy, with companies such as Meri and Tameo producing complete 1988 and 1989 Formula One Grand Prix grids in 1/43rd-scale white metal form. These are by far the best to acquire if a Formula One field from AGS to Zakspeed is what you want, and they retail at around £16.00 per kit.

If your interest in the sport extends back a few years, UK-based firm Scale Racing Cars could be the one for you. Their superb range of 1/43rd scale kits includes Graham Hill's 1974 Embassy Racing Lola T370 and the 1969 Matra MS80 driven by Graham's arch-rival Jackie Stewart. One of the strong points of

these kits is the lift-off bodywork permitting close views of engine and suspension detail. Cost: £16.50 per kit.

There seem to be a few Ferrari buffs out there, so it will be no surprise that some of the best Maranello models come from Italian company Dallari. Their range of 312s in 1/43rd scale, featuring engine detail, cost a little more, but the extra money - £18.50 a kit - is well spent.

The famous Lotus 49 is another favourite, and Meri can provide four different versions including the Jim Clark car and the Rob Walker car example driven by Jo Siffert, these also costing around the £16.50 mark. Back to Tameo, though: they offer a very special series of World Championship cars in 1/43rd scale. The only one currently available is the Ayrton Senna McLaren MP4/4; it has many more parts, the majority of them photo-etched, and comes with a colourful instruction booklet in a special picture box including photographs of driver and car. It retails at around £19.00, and Luca Tameo has plans to produce the full range of World Champions' cars starting with the Alfa-Romeo 158 of

Giuseppe Farina and working through every year since then. This really will make a collection to enhance any living room!

On a more general note, I am often asked if white metal kits are difficult to build. My answer is always that if you can build a plastic kit you can build one in white metal. A very good booklet on the subject comes from John Simmonds of Marsh Models fame; called *The World of 43*, it costs £3.00 and is a very good investment for the enthusiastic modeller.

Model cars do come, of course, in plastic, though the scale is usually larger. Leaders in this field are Tamiya Kits of Japan in 1/20th scale. Newest of their range at the moment is the McLaren MP4/4. Unfortunately is comes only with decals for the British Grand Prix version, which to my mind detracts from the impact of the finished model, but then opinions are purely personal, aren't they? On the plus side, Tamiya Kits all come with outstanding engine detail - and at around £8.99 they're also a lot cheaper!

Allen Syms
Just Cars Anyway

LONGINES WINNER

A star feature of Prix Editions International in 1989 was our devilish Longines competition. From a massive entry, the winner turned out to be Gary Mumford of Nottingham, who travelled down to London to be the guest of Mr Kasper Arnet, Longines' Swiss-based public relations Manager, and his UK counterpart Mr Bernard Cressy. Gary is pictured in London's Cumberland Hotel, with Mr Cressy (left) and Mr Arnet presenting the superb prize - that Longines Chronograph watch. Gary had taken a sensible precaution - he insured it the night before coming down to London for the presentation! Our warmest thanks again to Kaspar in particular, and to LAT's Steven Tee for taking the pictures for us.



"That must be what they mean by a chequered career!!"



FORMULA ONE CARD SCHOOL SET UP!

There are those who would say Formula One drivers are among the world's biggest gamblers every time they clamber into a cockpit, but there is a new Card School open to all followers of the sport.

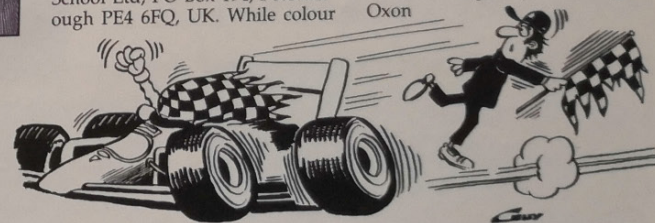
A new company called just that - The Card School - based in Peterborough has created a collectors' item in the shape of a full set of postcards, using original photographs, illustrating the drivers who have won the World Championship since its inception in 1950 and the cars in which the title was won. There are 80 photographs in all, in eight sets of ten: four sets of drivers by decades, four sets of cars - remember that the Constructors' World Championship was not initiated until 1958, so The Card School uses the car in which the driver took the title from 1950-57 rather than the Championship-winning marque. Forty years of top-flight Formula One racing are encapsulated, each set having its own presentation wallet. Price in £5.00 the set, or a discount special of £35.00 if all eight sets are ordered from The Card School Ltd, PO Box 194, Peterborough PE4 6FQ, UK. While colour

and monochrome sit happily side by side, this collector found the black-and-white photos in particular full of atmosphere and impact. As a gift - to yourself if you can think of no-one better! - or a genuine collector's item, The Card School's is an excellent idea and perfectly timed for what should be an eager market.

The winner of the Subscribers' Draw holiday to the San Marino Grand Prix is Mrs Margaret Jones, 172 London Road, Dunstable, Beds. She was in fact the second name drawn out, but the first person could not make that weekend. The runners up are:

5 Martin Brundle prints to: R. Davies (original winner), Hengoed, Mid-Glamorgan
Mrs J. Gibson, Muckhart, Clacks
Mr Stuart Davis, Wolverhampton
Nigel K. Keeling, Solihull, West Midlands

Mr R.I. Pope, London SW19
10 Murray Walker Vol 3 to: Kevin Lawrence Bennett, Leigh, Lancs
Mr S.E. Hurry, Orpington, Kent
Mr R.J. Manns, Bristol
Peter J. Franklin, Doncaster
Mr M. Gilbert, Rochester, Kent
Alan Masters, Chichester, Sussex
Ruth Bennett, Coleford, Glos
Trevor Torkington, London E13
Matthew Rook, Keighley, West Yorkshire
Mr J.S. Highway, Deddington, Oxon

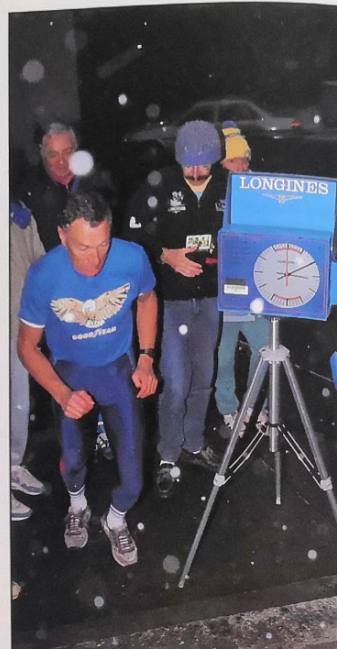


PIT

FALLS

Life on the pit lane's lighter side

Remember our major 1989 feature on Longines as a benevolent force in Formula One? At the end of last season there were those who might not have found the Swiss company quite so public-spirited. Remember also a great Eddie Cochran hit called 'Three Steps to Heaven'? There were rather more than that number to be climbed when Longines' Kaspar Arnet put a select group of Grand Prix guests through a weekend of torture, culminating in what are called the "Himmelsstiege", German for "Stairway to Heaven". The said feature decorates the Alpine village where it all took place, and the man about to be put through his paces - literally - is the Manager of International Racing Public Relations for Goodyear, Barry Griffin. Rumour has it BG looked marginally less fit at the top than he does here, with Kaspar Arnet (right) beaming all over his face at the prospect of timing human beings instead of cars for a change. BG, you might say, was tired out by the time he reached the top...



(Peter De Vries)

The eyes have it - or not, as seems to be the case here with Andrea De Cesaris, pictured at Estoril towards the end of last season. Now the Roman has a reputation for a certain degree of instability, it's true: could this be one of the reasons why he doesn't see people coming?

While Andrea has gone white, Italian compatriot Michele Alboreto appears to have lost one eye altogether. Now I'm sure it was here when I looked this morning...



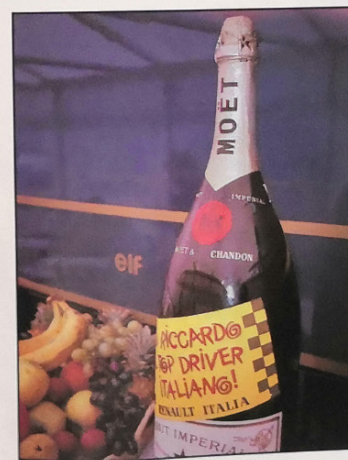
(Dominique Leroy)

PITFALLS PITFALLS PITFALLS PITFALLS

No worries on the eyesight front for Gerhard Berger - but that left ear seems to be giving McLaren's new boy cause for concern. As for Steve Nichols, with him in the picture, he must have been contemplating his imminent move to Ferrari...

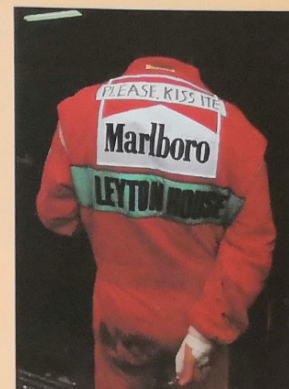


(Dominique Leroy)



... then Renault offer Riccardo Patrese the appropriate bubbly to end a season in which he not only became the most experienced Formula One driver of them all, but took pole, led races and was desperately unlucky not to be a winner again.

PITFALLS PITFALLS PITFALLS PITFALLS



(Dominique Leroy)

Hitchcock comes to Formula One: the invitation seems harmless enough, but the weapon in that right hand would put anybody off. See what they get up to in quiet moments of testing?

Wishful thinking... JP, without a Grand Prix drive this year, was much in demand as a test driver in the close season, but this seems about as close as he will come to filling Formula One's most sought-after cockpit.



(Dominique Leroy)

And finally, two causes for genuine celebration: first Messrs Schlesser and Prost enjoy the fruits of World Championship success, in sportscars and Formula One respectively (was it the first time Alain smiled in 1989?)...



(Dominique Leroy)

PRIX EDITIONS

International Formula One Monthly

READING BETWEEN THE LINES

Lies, damn lies and statistics: are the latter trustworthy? Whatever the answer to that question, your response to my request for information about our readership was staggering - like the postman who had to bring the documents to our door! All in all, I could probably compute what percentage of you use toothpaste with go-faster stripes, what your basic prejudices are, and the star sign under which you operate. But seriously, I am very grateful for the huge number of replies received. In 1990 *Prix Editions*, now monthly, will do its utmost to please as many of you as the magazine possibly can. Take Race Reports, in which 69% of those responding said they were "very interested": this year we shall give more page space to each of David Tremayne's race reports, add a special section seeing each Grand

Prix through one particular driver's eyes, enhance the statistical section and of course allow *PEI*'s outstanding team of photographers to show their skills.

This does not mean a cut in the quality of other features: established favourites like "On the Other Hand", "Outside Looking In", "Rear View Mirror" and others will all continue to feature regularly, but we shall endeavour to satisfy your craving for driver interviews and especially more technical features.

As this first issue of the Nineties shows, we are responding to one particular demand with our "Formula Fun" section, where cartoons, model reviews, quizzes and competitions will abound, and other new regular spots will include a section on the special art of black-and-white photography. And as if that were

not enough, we're also giving away posters in our first two issues! Many thanks again for your help - and here are the names of those who won prizes for their particular efforts:-

Overall:

Mr J.A. Holland, of Arnold, Notts.
Mr Nick J.R. Steers, of Edinburgh.
Gordon McCabe of Reading, Berks

Best answers to Question 6:

Daniele Montour of Brackley, Northants.

Sheila Camp of London.

Mr Trevor Torkington of London.

Best answer to Question 19:

M. Cameron of London: "It's as entertaining as Senna; it's got more impact than de Cesaris; its journalists put in more effort than Piquet; it's more interesting than Ferrari; it's got more features than Mansell's got excuses; it takes longer to read than Prost does to retire in a wet race."

Miss D. Roberts of Kirkcudbright:

P. erfect

E. very

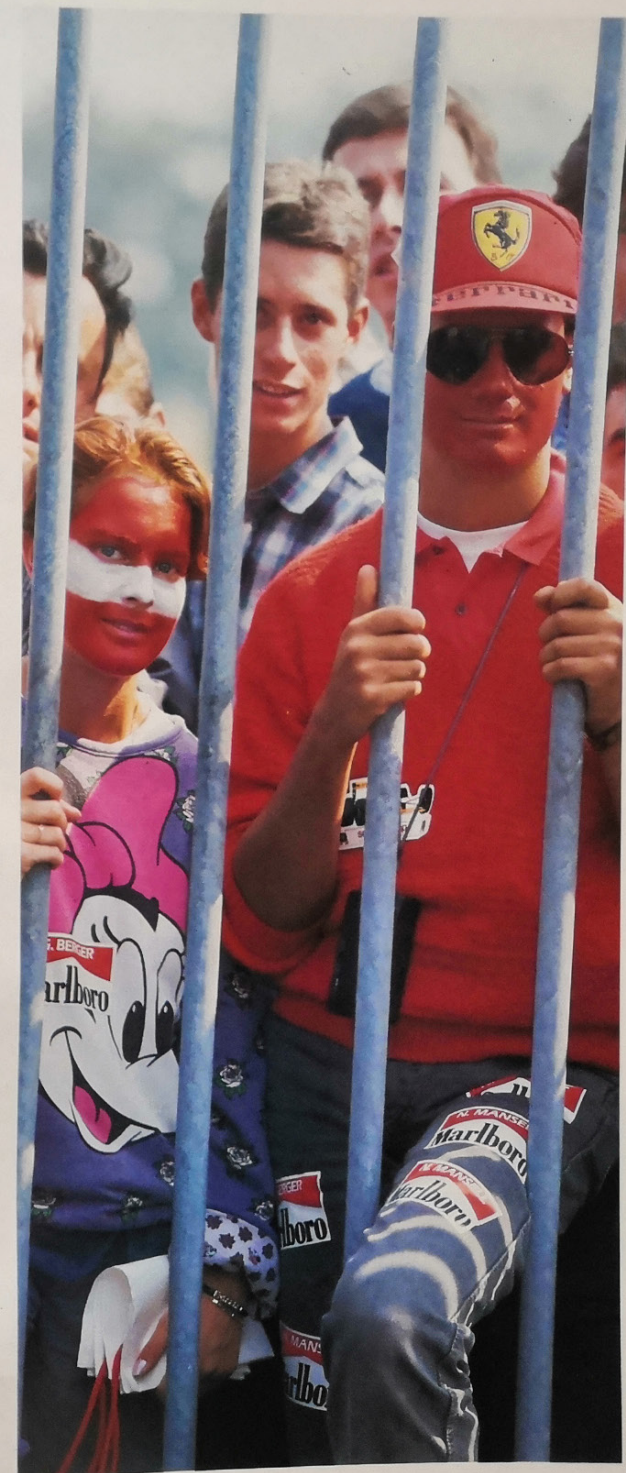
I. ssue

Well worth the money

R.G. Porter of Bristol: "I could give up all the rest, but I would always buy *PEI*."

Copies of Murray Walker's Grand Prix Year Vol. 3 duly dispatched to all.

Should have called it... reading between the bars! Only kidding...



(Composite Larry)

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International Formula One Monthly

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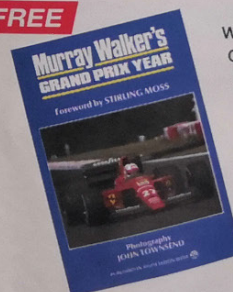
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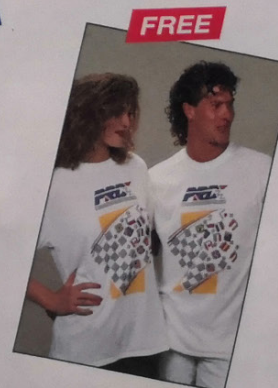
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1984 400A
1984 400A S PD
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1984 MONDIAL COUPE
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1985 308 GTS
1959 250 PF
1958 250 PF
1976 GTO REPLIC
1989 365 GT 2.2
1988 328 GTS
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1987 COUNTACH
1989 BLERO
1967 400GT 2.2

JAGUAR
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1986 SPUR
1986 SPIRIT C
1984 SPIRIT C

MERCEDES BENZ
1936 500K CAB B.
1960 300 SL
1952 300 SL
1954 GULLWING
1955 GULLWING
1955 GULLWING
1957 300 SL IN PAINT
1959 300 SL
1960 300 SL
1954 300 D CONV.
1959 300 B CONV.
1968 600 SWB

BENTLEY
1989 TURBO R
1961 S2
1964 S3

BLACK/BLACK
YELLOW/BLACK
RED/TAN
BLUE/BLACK
YELLOW/BLACK
BURG/TAN
MAGNOLIA/TAN
BLUE/BLUE
MAGNOLIA/TAN
WHITE/RED
SILVER/BROWN
2T BROWN/BROWN
2T BROWN/BROWN
CHESTNUT/BROWN
BLUE/TAN
BLUE/TAN
WHITE/TAN
BLACK/CREAM
BLUE/CREAM

RED/TAN
GREY/BLUE
WHITE/BLUE
WHITE/BLUE
RED/TAN
WHITE/RED
IVORY/WHITE
BLACK/RED
LT. BLUE/TAN
BURG/TAN
BLACK/BLUE
BURG/TAN

ASTON MARTIN
1989 VANTAGE VOLANTE
1988 VOLANTE
1976 COUPE
1971 COUPE
1989 DBS
1986 DBS
1965 DBS R.H.D.

EXCALIBUR
1988 PHAETON
1985 PHAETON
1967 ROADSTER

MASERATI
1972 MEXICO
1971 GHIBLI
1967 MISTRAL

FORMULA 1 RACE CARS
1982 MARCH VE COSWORTH
1982 THEODORE (VPI) EX TAMBAIRAZZA
1983 ALFA V8 TURBO

INDY CARS
1988 MARCH
1988 MARCH
1988 MARCH

MISCELLANEOUS
1933 AUSTIN AMERICAN
1967 AUSTIN HEALEY
1981 BMW M3
1968 RX-7 GT2
1965 2600 ROADSTER
1964 2600 SPYDER
1968 ALFA GTA
1965 ALFA GTC CABRIO
1987 FORD PROBE GTP

BLACK/CREAM
BLACK/TAN
BLUE/TAN
BLUE/TAN
WHITE/BLACK
RED/RED
RED/BLACK

BLACK/TAN
WHITE/TAN
BLUE/RED
BURG/BLACK
BLUE/BLUE
SILVER/TAN

ROTHMANS
RELDAN EX. JOHNS MASS
MARLBORO

FITTPALDI
FITTPALDI
FITTPALDI

BLUE/BLACK
RED/BLACK
RED/TAN
BLUE/BLUE
RACE CAR

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